SERVICE MANUAL

BE-3D CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-28WS2B	RM-862	French	SCC-K01M-A	KV-28WS2K	RM-862	OIRT	SCC-K08V-A
KV-28WS2D	RM-862	AEP	SCC-K07N-A	KV-28WS2R	RM-862	OIRT	SCC-K20A-A
KV-28WS2E	RM-862	Spanish	SCC-K06M-A	KV-28WS2U	RM-862	UK	SCC-K04H-A

MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Channel Coverage	Colour System
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
OIRT	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
UK	I	UHF: U21-U69	PAL NTSC3.58/4.43 (video input only)

MODEL	28WS2B	28WS2D	28WS2E	28WS2K 28WS2R	28WS2U
Power Consumption	112W	112W	112W	112W	185W

SPECIFICATIONS

Picture Tube	Super Trinitron WIDE Approx. 71 cm (28 inches) (Approx. 66 cm picture measured diagonally) 110° -deflection

Rear/Front Terminals

[REAR]

→⊖ 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio and video signals
- Inputs for RGB
- Outputs for TV audio and video signals

⊖→ 2/ →Ⓢ 2, 21-pin Euro connector (CENELEC standard)
- Inputs for audio and video signals
- Inputs for S video
- Outputs for TV audio and video signals (selectable)

⊙→ audio outputs - phono jacks
Left/Right Speaker Terminals
Surround Speaker Terminals

[FRONT]

→◻ 3 , Video input - phono jack
→⊙ 3 , Audio inputs - phono jacks
→Ⓢ 3 , S video input - 4 pin DIN
🎧 Stereo minijack - headphone jack

Sound output	
Left/Right	2x10W (RMS) 2x20W (music power)
Centre	2x2.5W (RMS) 2x5W (music power)
Surround	2x5W (RMS) 2x10W (music power)
Dimensions	798x497x531 mm approx.
Weight	Approx. 43.0 kg (with speakers)

Supplied accessories
RM-862 Remote Commander (1)
Batteries R6 (2)
Surround Speakers (2)
Surround Speakers Leads (2)

Other features
Fastext, Dolby Pro Logic
NICAM (KV-28WS2B,28WS2E,28WS2K,28WS2R and 28WSU only)

[RM-862]

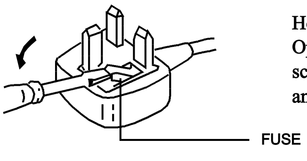
Remote control system	Infrared control
Power requirements	3V dc (2 batteries) R6 (size AA)
Dimensions	Approx. 210x56x24 mm (w/h/d)
Weight	Approx. 110g (Not including battery)

Design and specifications are subject to change without notice.

Model name / Item	KV-28WS2B	KV-28WS2D	KV-28WS2E	KV-28WS2K KV-28WS2R	KV-28WS2U
PIP	OFF	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF	OFF
Rotation Coil	ON	ON	ON	ON	ON
VM Set	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON	ON
TXT	ON	ON	ON	ON	ON
FLOF	ON	ON	ON	ON	ON
TOP	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	OFF
Norm I	ON	OFF	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	OFF
Norm L	ON	OFF	OFF	OFF	OFF
Language Preset	French	German	Spanish	OIRT	English

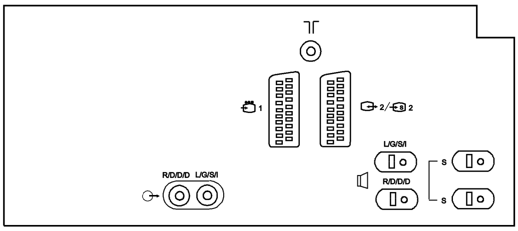
WARNING (KV-28WS2U only)

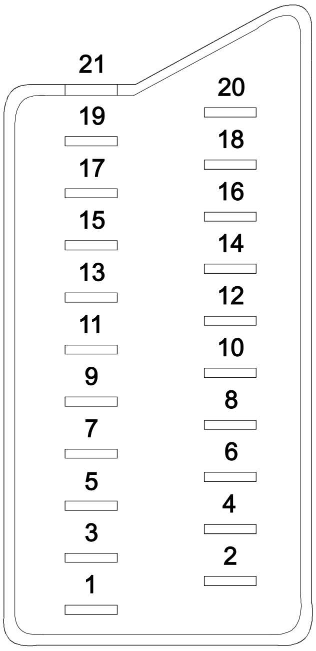
The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the ◇ mark.
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME.
IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED.
THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade
and replace the fuse.

21 pin connector (⇥ 1, ⇄ 2 / ⇥S 2)

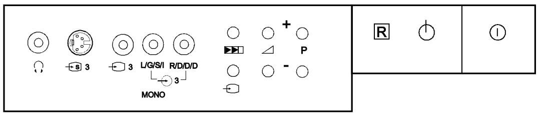




Pin No.	1	2	4	Signal	Signal Level
1	○	○	○	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	○	○	○	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	○	○	○	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	○	○	○	Ground (Audio)	
5	○	○	○	Ground (Blue)	
6	○	○	○	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (Green)	
10	○	○	○	Open	
11	○	●	●	Green	
12	○	○	○	Open	
13	○	○	○	Ground (Red)	
14	○	○	○	Ground (Blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) croma input	0.7 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (Video output)	
18	○	○	○	Ground (Video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	○	—	—	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	○	○	○	Common ground (plug, sheild)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.



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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

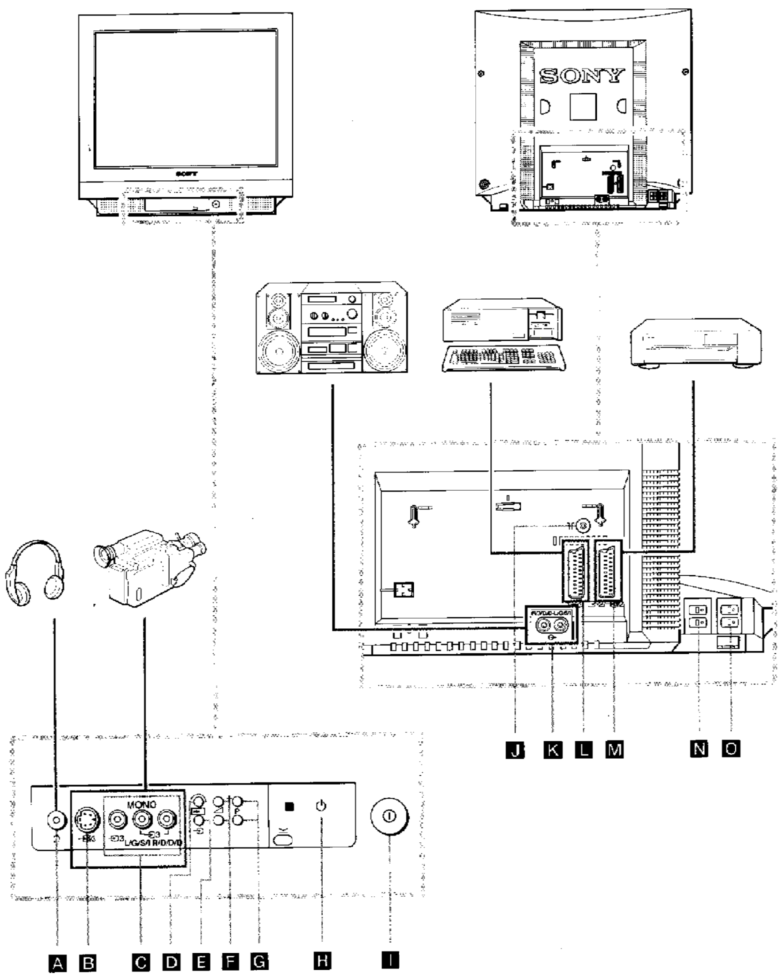
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in the manual.


SONY
MONO
L/G/S/I R/D/D/D
A
B
C
D
E
F
G
H
I
J
K
L
M
N
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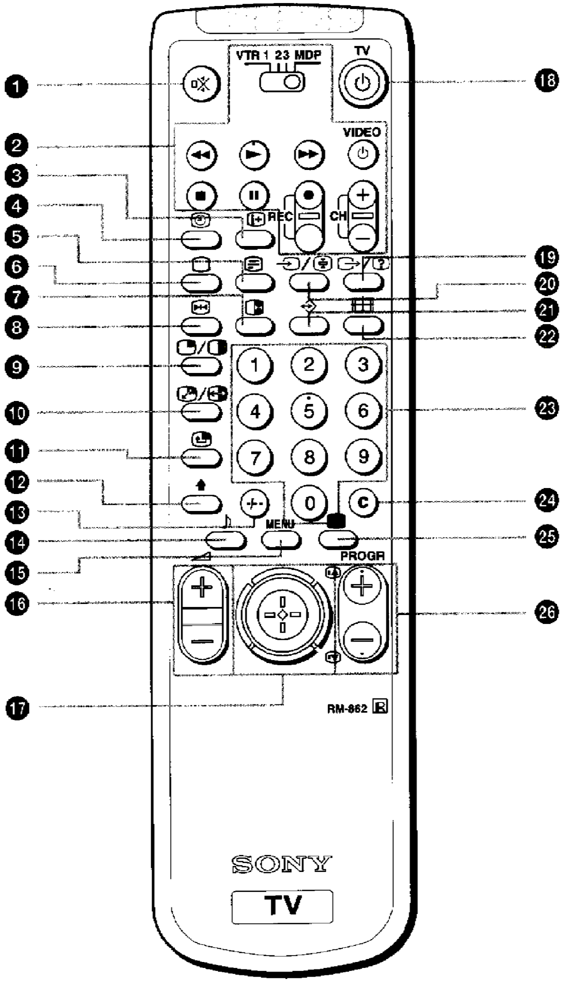
VTR 1 23 MDP
TV
VIDEO
REC
CH
MENU
PROGR
RM-862
SONY
TV
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Overview

This section briefly describes the controls and the buttons on the TV set and on the Remote Commander. Please open the flap at the front of the Instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description.

TV-Buttons and Terminals

Reference and Symbol	Name	Refer to Page
Front of the set		
A ∩	Headphones jack	33
B ⇥S 3	S video input jack	33
C ⇥ 3, ⇥ 3	Audio/video input jacks	33
D ⏭☐	Automatic Preset button	12
E ⇥	Input mode button	14
F ◿ +/-	Volume control	13
G P +/-	Programme button	13
H ⏻	Standby mode indicator	13
I ⓘ	Main power switch	13
Rear of the set		
J ⊤⊤	Aerial socket	11
K ⇥	Audio phono jacks	33
L ⇥ 1	21 pin Euro connector	33
M ⇥ 2/⇥S 2	21 pin Euro connector	33
N L/G/S/I, R/D/D/D	Left/Right speaker terminals	10
O S	Surround speaker terminals	10

Remote Commander Operation

Reference and Symbol	Name	Refer to Page
❶ 🔇	Muting on/off button	13
❷	**VCR operation**	36
VTR123MDP	Video equipment selector	36
◀◀ ▶ ▶▶ ■ ❚❚ ●	Video equipment operation buttons	36
VIDEO ⏻, CH +/-		
❸ ⊡	On-screen display button	13
❹ ◎	Time display button	13
❺ ⊜	Teletext button	14
❻ ▢	TV power on/TV mode button	13, 14
❼❽❾❿⓫⓬	No function on this set	-
⓭ -/--	Double digit entering button	13
⓮ ♪	Sound mode button	20
⓯ MENU	Menu on/off button	15
⓰ ◿ +/-	Volume control button	13
⓱ ⊕	Joystick for menu selection. Press to confirm selection (OK function)	15
⓲ TV⏻	TV standby button	13
⓳ ⇥ ?	No function on this set Teletext: reveal button	- 31
⓴ ⇥ ⊕	Input mode button Teletext: Freezing the subpage	14 31
㉑ ⇥	Teletext: Favourite pages button	32
㉒ ⊞	Button to change screen format	14
㉓ 1, 2, ... 9, 0	Number buttons	13
㉔ C	Direct channel button	14
㉕ ■	Picture mode button	20
㉖ PROGR +/- ▲ ▼	Programme buttons Teletext: Page up/page down buttons	13 14

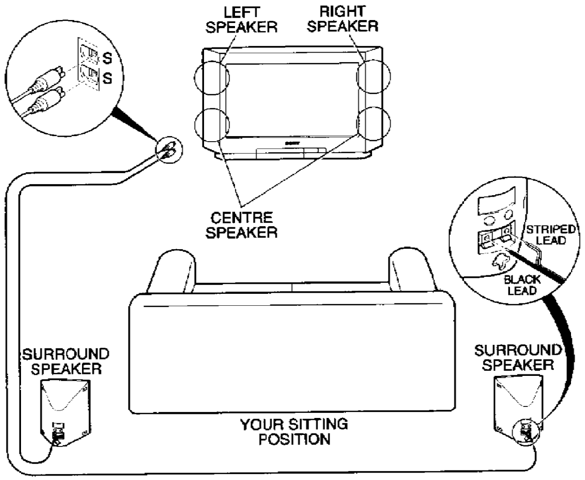
Step 1

Connecting the Speakers

Do not switch on the TV before you connect the speakers.

Dolby (*) Pro Logic Surround normally requires 5 speakers:

Centre speaker (incorporated in the TV set)
- for anchoring the stable sound image, like dialogue, to the TV screen
Left and Right front speakers (incorporated in the TV set)
- for the normal two channel stereo or bilingual broadcasts
Surround speakers
- for the special effects created by the surround channel



Notes:

- Connect the speakers using the leads provided. The striped lead (+) is for the red terminal of the speaker and the black lead (-) is for the black terminal.
- If you use your own speakers, make sure they are at least 8Ω impedance and are magnetically shielded. Otherwise picture distortion may occur.

(*) Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol ◻◻ and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Step 2

Connecting the Aerial

(If you connect a VCR, skip to step 3)

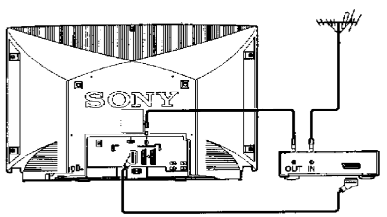
Insert the aerial plug tightly into the aerial socket ⏉⏋ **J**. Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

Step 3

Connecting a VCR

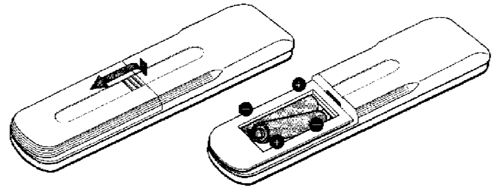
We recommend that you tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 17.

See "Connecting Optional Equipment" on page 33 for more information.



Step 4

Inserting the Batteries Into the Remote Commander



Respect your environment! Dispose of used batteries in an environmentally friendly way.

Step 5

Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.

If you prefer manual presetting, refer to "Presetting Channels Manually" on page 17.

1 Plug into mains.
Press the power switch ⏼ 🅸 on the TV set.

2 Press and hold the button ⏭ 🅳 on the TV set until the automatic menu is displayed and the search starts.

After all available channels are stored, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set.

To	Press
Switch on	⏼ 🅸 on TV
Switch off temporarily	⏻ ⓲ TV is now in standby mode and ⏻ 🅷 indicator on TV lights up.
Switch on from standby mode	▢ ❻, PROGR +/- ㉖ 🅶 or any number button ㉓
Switch off completely	⏼ 🅸 on TV To save energy, switch off your TV completely when TV is not in use.
Select programmes	PROGR +/- ㉖ 🅶 or number buttons ㉓ For double digit number, press -/-- ⓭ then the number e.g. For 23, press -/-- ⓭ then 2 and 3.
Display on screen indications	ⓘ ❸. Press again to make the indications disappear.
Adjust the volume	◿ + or - ⓰ 🅵
Mute the sound	🔇 ❶. Press again to restore the sound.
Display the time (only available when teletext is broadcast)	◎ ❹. Press again to make the display disappear.

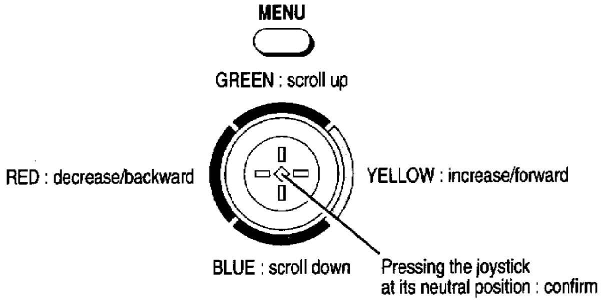
TV Operation (continued)

To	Press
Tune in a channel temporarily	C ㉔. The indication "C" appears. Enter the double digit number. e.g. For 4, press 0 then 4.
View video input picture (see page 34 for detailed information)	⇥ ⑳ E repeatedly until the desired video input appears. Press ▢ ⑥ to restore the TV picture.
Operate Screen Mode (see page 19 for detailed information)	⊞ ㉒ 4:3 —> Smart —> Zoom —> Wide When using zoom mode, select 'scroll' to see the cut-off part of the screen.
View teletext (see page 31 for detailed information)	
Switch on	⊜ ⑤
Select a page	three number buttons ㉓ or ⊡ ㉖ (for next page) or ⊡ ㉖ (for previous page).
Use fastext	Push joystick ⑰ to select a colour.
Switch off	▢ ⑥

Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:

1 Press MENU ⑮ to switch menu on/off.
2 Use the joystick ⑰ as follows.

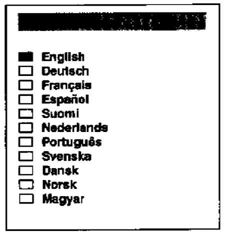

MENU
GREEN : scroll up
RED : decrease/backward
YELLOW : increase/forward
BLUE : scroll down
Pressing the joystick at its neutral position : confirm

Choosing the Menu Language

This function enables you to change the language of the menu screens.

1 Press power switch ① I on the TV. If the standby indicator ⏻ H on the TV is lit, press ▢ ⑥ or a number button ㉓ on the Remote Commander.

2 Press the MENU button ⑮ on the remote commander.



■ English
☐ Deutsch
☐ Français
☐ Español
☐ Suomi
☐ Nederlands
☐ Português
☐ Svenska
☐ Dansk
☐ Norsk
☐ Magyar

3 Push to blue or green to select the language you want then push to yellow.

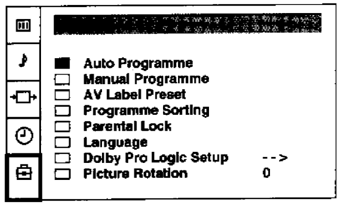
4 Press the MENU button ⑮ to restore the normal TV picture.

Presetting Channels Automatically

You may have already preset the channels automatically by using the method shown on page 12. You can also preset channels automatically by using the remote commander as follows:

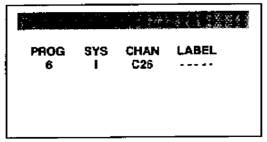
1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup -->
☐ Picture Rotation 0

3 Push to blue or green to select 'Auto Programme'.

4 Push to yellow and hold until the automatic menu is displayed and the search starts.
After all available channels have been preset, the normal TV picture is shown.



PROG	SYS	CHAN	LABEL
6	I	C26	-----

Note: Channels are automatically stored as follows:

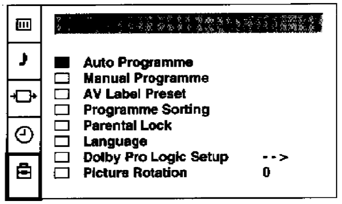
Programme 1	BBC1
Programme 2	BBC2
Programme 3	ITV
Programme 4	CH4 or S4C

Presetting Channels Manually

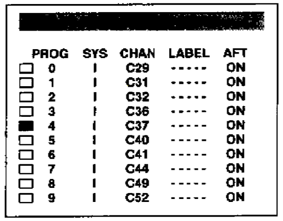
This function enables you to preset channels one by one to different programme numbers. This is also convenient for allocating programme numbers to various video input sources.

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup -->
☐ Picture Rotation 0

3 Push to blue or green to select 'Manual Programme' then push to yellow .



	PROG	SYS	CHAN	LABEL	AFT
☐	0	I	C29	-----	ON
☐	1	I	C31	-----	ON
☐	2	I	C32	-----	ON
☐	3	I	C36	-----	ON
■	4	I	C37	-----	ON
☐	5	I	C40	-----	ON
☐	6	I	C41	-----	ON
☐	7	I	C44	-----	ON
☐	8	I	C49	-----	ON
☐	9	I	C52	-----	ON

4 Push to blue or green to select on which programme number you want to preset a channel then push to yellow.

5 Push to blue or green to select the TV broadcast system 'I' or a video input source (AV1, AV2,...) then push to yellow twice.

6 Select the first number digit of 'CHAN' (channel) then the second number digit of 'CHAN' with the number buttons ㉓ on the remote commander
or
Push joystick ⑰ to blue or green to search for the next available channel.

7 If you want to store the channel, go to step 8. If not, select a new channel using the number buttons ㉓ on the remote commander or push to blue or green to resume the search.

8 Press the joystick ⑰.

9 Repeat steps 4 to 8 to preset other channels.

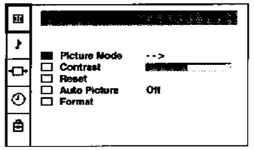
10 Press the MENU button ⑮ to restore the normal TV picture.

Adjusting the Picture and Sound

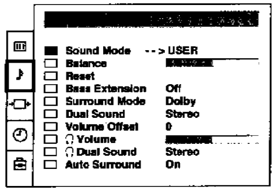
Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select ▥ for picture control or ♪ for sound control then push to yellow.



■ Picture Mode -->
☐ Contrast
☐ Reset
☐ Auto Picture Off
☐ Format



■ Sound Mode --> USER
☐ Balance
☐ Reset
☐ Bass Extension Off
☐ Surround Mode Dolby
☐ Dual Sound Stereo
☐ Volume Offset 0
☐ 🎧 Volume
☐ 🎧 Dual Sound Stereo
☐ Auto Surround On

3 Push to blue or green to select the desired item then push to yellow.

4 Push to red or yellow to alter the item then press the joystick ⑰.
For the effect of each control, see the following tables.

5 Repeat steps 3 and 4 to adjust the other items.

6 Press the MENU button ⑮ to restore the normal TV picture.

Adjusting the Picture and Sound (continued)

PICTURE CONTROL	Effect
Picture Mode	•User —> Game —> Movie —> Sports —> Live In 'User' mode, you can preset Brightness, Colour, Sharpness and Hue (NTSC signals only) as follows: **1** Push joystick ⑰ to blue or green to select the desired item then push to yellow. **2** Push to red or yellow to adjust then press the joystick ⑰. **3** Push to red to return to the PICTURE CONTROL menu.
Contrast	•Darker —— I —— Brighter
Reset	•Resets picture to the factory preset levels.
Auto Picture	•All the picture levels automatically change according to the surrounding lighting level. (Auto Picture Control)
Format	•There are three options. Format (4:3 —> Smart —> Zoom —> Wide), Scroll or Auto 16:9. To preset these, follow the procedure below. **1** Push joystick ⑰ to blue or green to select the desired item then push to yellow. **2** Push to red or yellow to change the setting then press the joystick ⑰. **3** Push to red to return to the PICTURE CONTROL menu. **Format/Scroll** Once 'Zoom' has been selected in 'Format' mode, you can then choose the 'Scroll' function to scroll the screen upwards or downwards to see the cut-off part (e.g. subtitles) **or** after selecting 'Zoom' and returning to the normal picture, push joystick ⑰ to blue or green to scroll then press joystick ⑰. **Auto 16:9** Automatically selects 16:9 picture mode when receiving a 16:9 broadcast (set to 'Off' if signal reception is weak).

Adjusting the Picture and Sound (continued)

SOUND CONTROL	Effect
Sound Mode	• User —> Rock —> Jazz —> Pop In 'User' mode, you can preset Treble and Bass as follows. 1 Push joystick ⑰ to blue or green to select the item then push to yellow. 2 Push to red or yellow to adjust then press the joystick ⑰. 3 Push to red to return to the 'SOUND CONTROL' menu.
Balance	• Left —— I —— Right
Reset	• Resets sound to the factory preset levels.
Bass Extension	• Boosts bass by a fixed amount.
Surround Mode	• Choice among special sound effects. Pro Logic —> Pseudo Stereo —> Spatial —> Club —> Theatre—> Hall —> Church —> Stadium —> Off
Dual Sound	• A: Left channel —> B: Right channel —> stereo —> mono
Volume Offset	• Presets the volume level for individual programmes. -12 —— 0 —— +12
🎧 Volume	• Adjusts the headphone volume.
🎧 Dual Sound	• Selects the headphone channels. A: Left channel —> B: Right channel —> stereo —> mono
Auto Surround	• Automatically selects Pro Logic Surround sound when transmitted. (set to 'Off' if signal is weak).

Changing Modes Quickly

You can quickly change the Surround Mode or the Picture Mode without entering the 'SOUND CONTROL' or the 'PICTURE CONTROL' menu.

1 Press ■ ㉕ for the picture or ♪ ⑭ for the sound.

2 Push joystick ⑰ to blue or green to select the desired mode.

3 Press ■ ㉕ or ♪ ⑭ again to restore the normal TV screen.

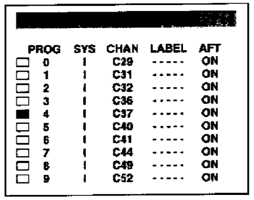
Manual Fine-Tuning

Normally, the automatic fine-tuning (AFT) function is operating.
If the picture is distorted however, you can manually fine-tune the TV to obtain a better picture reception.

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.



	PROG	SYS	CHAN	LABEL	AFT
☐	0	I	C29	-----	ON
☐	1	I	C31	-----	ON
☐	2	I	C32	-----	ON
☐	3	I	C36	-----	ON
■	4	I	C37	-----	ON
☐	5	I	C40	-----	ON
☐	6	I	C41	-----	ON
☐	7	I	C44	-----	ON
☐	8	I	C49	-----	ON
☐	9	I	C52	-----	ON

4 Push to blue or green to select the programme number which corresponds to the channel you want to manually fine-tune.

5 Push to yellow repeatedly until the AFT position changes colour.

6 Push to blue or green to fine tune the channel frequency (-15 to +15).

7 Press the joystick ⑰.

8 Repeat steps 4 to 7 to fine-tune other channels.

9 Press the MENU button ⑮ to restore the normal TV picture.

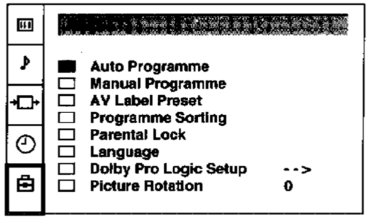
Sorting Programme Positions

This function enables you to exchange the programme positions.

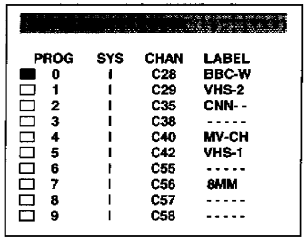
1 Press the MENU button ⓯.

2 Push joystick ⓱ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Programme Sorting' then push to yellow .


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup --->
☐ Picture Rotation 0

4 Push to blue or green to select the channel you want to exchange then push to yellow.



	PROG	SYS	CHAN	LABEL
■	0	I	C28	BBC-W
☐	1	I	C29	VHS-2
☐	2	I	C35	CNN- -
☐	3	I	C38	-----
☐	4	I	C40	MV-CH
☐	5	I	C42	VHS-1
☐	6	I	C55	-----
☐	7	I	C56	8MM
☐	8	I	C57	-----
☐	9	I	C58	-----

5 Push to blue or green to select the programme position of the channel you want exchanged then push to yellow.

6 Repeat steps 4 to 5 if you wish to exchange other programme positions.

7 Press the MENU button ⓯ to restore the normal TV picture.

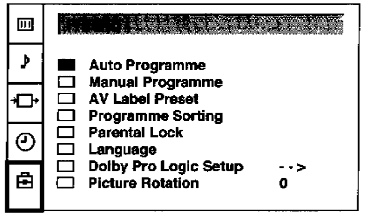
Using Parental Lock

This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

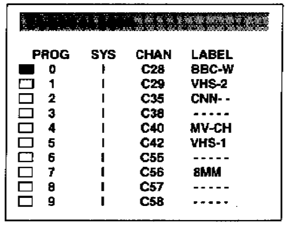
1 Press the MENU button ⓯.

2 Push joystick ⓱ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Parental Lock' then push to yellow.


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup --->
☐ Picture Rotation 0

4 Push to blue or green to select the channel you want to block then push to yellow.
A symbol appears before the programme number to indicate that this channel is now blocked.



	PROG	SYS	CHAN	LABEL
■	0	I	C28	BBC-W
☐	1	I	C29	VHS-2
☐	2	I	C35	CNN- -
☐	3	I	C38	-----
☐	4	I	C40	MV-CH
☐	5	I	C42	VHS-1
☐	6	I	C55	-----
☐	7	I	C56	8MM
☐	8	I	C57	-----
☐	9	I	C58	-----

5 Repeat step 4 if you wish to block other channels.

6 Press the MENU button ⓯ to restore the normal TV picture.

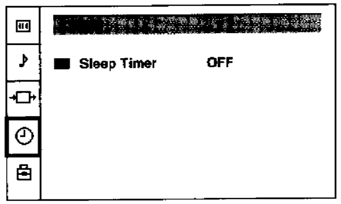
Note: To unblock, push to yellow after selecting the channel to unblock in the 'Parental Lock' menu.

Using the Sleep Timer

This function enables you to select a time period after which the TV automatically switches into standby mode.

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ◷ on the menu screen then push to yellow.


Sleep Timer OFF

3 Push to yellow.

4 Push to red or yellow to set time delay and press the joystick ⑰.

OFF 0:30 1:00 1:30 .... 3:30 4:00

One minute before the TV switches into standby mode, a message is displayed on the screen.

5 Press the MENU button ⑮ to restore the normal TV picture.

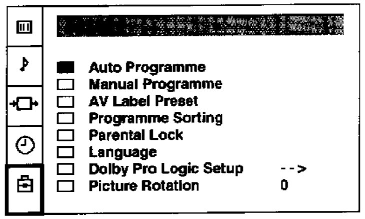
Adjusting the Picture Rotation

(KV-28W52U only)

If, due to the earth magnetism, the picture slants, you can use the function 'Picture Rotation' to readjust the picture.

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.


- ■ Auto Programme
- ☐ Manual Programme
- ☐ AV Label Preset
- ☐ Programme Sorting
- ☐ Parental Lock
- ☐ Language
- ☐ Dolby Pro Logic Setup -->
- ☐ Picture Rotation 0

3 Push to blue or green to select 'Picture Rotation' then push to yellow.

4 Push to red or yellow to adjust the picture rotation then press the joystick ⑰. The adjusting range is -5 to +5.

5 Press the MENU button ⑮ to restore the normal TV picture.

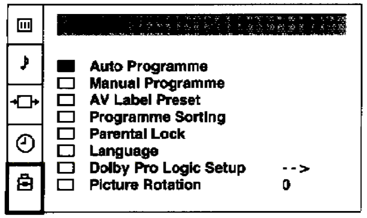
Skipping Programme Positions

This function enables you to skip unused programme positions when selecting them with the PROGR+/- buttons. However, you can still watch the channel of the skipped programme position by using the number buttons.

1 Press the MENU button ⑮.

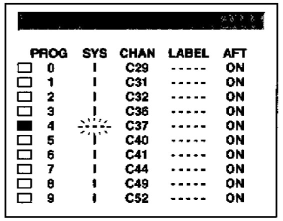
2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup -->
☐ Picture Rotation 0

4 Push to blue or green to select the programme position you want to skip then push to yellow.

5 Push to blue or green until '- - -' appears in the 'SYS' position.



	PROG	SYS	CHAN	LABEL	AFT
☐	0	I	C29	-----	ON
☐	1	I	C31	-----	ON
☐	2	I	C32	-----	ON
☐	3	I	C36	-----	ON
■	4	---	C37	-----	ON
☐	5	I	C40	-----	ON
☐	6	I	C41	-----	ON
☐	7	I	C44	-----	ON
☐	8	I	C49	-----	ON
☐	9	I	C52	-----	ON

6 Press the joystick ⑰.

7 Repeat steps 4 to 6 to skip other programme positions.

8 Press the MENU button ⑮ to restore the normal TV picture.

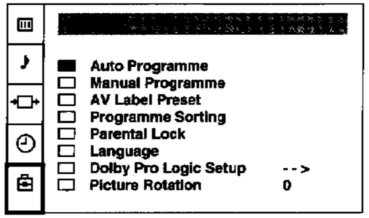
Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

1 Press the MENU button ⑮.

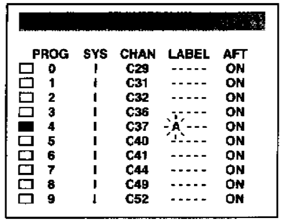
2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Manual Programme' then push to yellow.


■ Auto Programme
☐ Manual Programme
☐ AV Label Preset
☐ Programme Sorting
☐ Parental Lock
☐ Language
☐ Dolby Pro Logic Setup -->
☐ Picture Rotation 0

4 Push to blue or green to select the channel you wish to caption then push to yellow repeatedly until the first element of the 'LABEL' position is highlighted.

5 Push to blue or green to select a letter or number and push to yellow (select '-' for a blank). Select the other four characters in the same way.



	PROG	SYS	CHAN	LABEL	AFT
☐	0	I	C29	-----	ON
☐	1	I	C31	-----	ON
☐	2	I	C32	-----	ON
☐	3	I	C36	-----	ON
■	4	I	C37	-A---	ON
☐	5	I	C40	-----	ON
☐	6	I	C41	-----	ON
☐	7	I	C44	-----	ON
☐	8	I	C49	-----	ON
☐	9	I	C52	-----	ON

6 After selecting all the characters, press the joystick ⑰.

7 Repeat steps 4 to 6 to caption names for other channels.

8 Press the MENU button ⑮ to restore the normal TV screen.

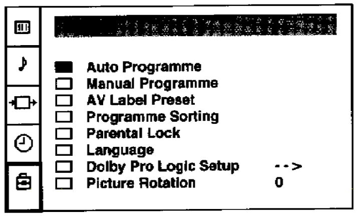
Setting Up Dolby Pro Logic

Before viewing Dolby Pro Logic encoded programmes, you have to set up the levels or modes of the speakers.
Normally this is required only when you install the TV and the speakers or change their positions.

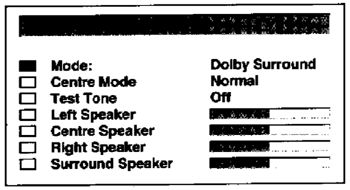
1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the menu screen then push to yellow.

3 Push to blue or green to select 'Dolby Pro Logic Setup' then push to yellow.



4 Push to blue or green to select 'Mode' then push to yellow.



■ Mode: Dolby Surround
☐ Centre Mode Normal
☐ Test Tone Off
☐ Left Speaker
☐ Centre Speaker
☐ Right Speaker
☐ Surround Speaker

5 Push to red or yellow to select the mode then press the joystick ⑰.
Dolby Pro Logic: if you want to use all the five speakers
Dolby 3 Stereo: if you do not want to use the surround speakers

6 Push to blue or green to select 'Centre Mode' then push to yellow.

7 Push to red or yellow to select the desired mode then press the joystick ⑰.
Normal: if you want to activate all the speakers
Wide: if you want a wider bandwidth sound effect
Phantom: if you do not want to use the centre speaker

8 Push to blue or green to select 'Test Tone' then push to yellow.

9 Push to red or yellow to select 'On' then press the joystick ⑰.
The test tone cycles through all the speakers.

10 Push to blue to select 'Left Speaker' then push to yellow.
The test tone stays at the selected speaker only.

11 Push to red or yellow to adjust the sound level then press the joystick ⑰.

12 Push to blue or green to select another speaker then push to yellow.

13 Repeat steps 11 to 12 to adjust the sound levels of all the other speakers.

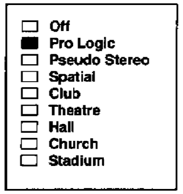
14 Press the MENU button ⑮ to restore the normal TV screen.

Presetting Dolby Pro Logic

With Dolby Pro Logic Surround mode selected, you can experience three dimensional sound when watching Dolby Surround encoded programmes.
To experience programmes encoded in Dolby Surround sound, preset the surround mode to 'Pro Logic' as shown below.

1 Press ♪ ⑭ on the remote commander.

2 Push joystick ⑰ to blue or green to select 'Pro Logic'.



☐ Off
■ Pro Logic
☐ Pseudo Stereo
☐ Spatial
☐ Club
☐ Theatre
☐ Hall
☐ Church
☐ Stadium

3 Press ♪ ⑭ to restore the normal TV screen.

Or alternatively you can select 'Pro Logic' in the surround mode of the 'SOUND CONTROL' menu (see page 20)

Teletext

Most TV channels broadcast information via teletext. The index page of the broadcaster (usually page 100) gives you information on how to use the service.
Make sure you use a TV channel with a strong signal, otherwise teletext errors may occur.

Switching Teletext on and off

1 Select the channel which carries the teletext service you wish to view.

2 Press ⊜ ⑤ to display teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.

3 Input three digits for the page number using the number buttons ㉓.
The page counter searches for the page and after some seconds the page is displayed.

4 Press ▢ ⑥ to return to the normal TV picture.

Using Other Teletext Functions

To	Press
Access the next or preceding teletext page	⊜▲ ㉖ for the next page or ⊜▼ ㉖ for the preceding page
Mix the mode	⊜ ⑤ when in teletext mode. Now the teletext page is superimposed on the TV programme. Press again to return to the normal teletext display.
Freeze a teletext subpage	⊕ ⑳. Press once again to cancel.
Reveal hidden information (e.g.: answers to a quiz)	⑦ ⑲. Press once again to cancel.

Favourite page system

You can store up to four of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

Storing pages

1 Use the number buttons ㉓ to select the page you would like to store.

2 Press ⇔ ㉑ twice.
The colour prompts at the bottom of the screen flash.

3 Push the joystick ⑰ to the desired colour to store the selected page.
The page is now stored on this colour.

Repeat steps 1 to 3 for the other 3 pages.

Displaying the Favourite Pages

1 Press ⇔ ㉑.

2 Push the joystick ⑰ to the colour on which the desired page is stored.

Make sure you press ⇔ ㉑ , otherwise the normal Fastext facility operates.

Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke . When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks ⑰ on the Remote Commander.

Push the joystick ⑰ to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Connecting Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

Symbol	Acceptable input signals	Available output signals
⇥ 1 🄻	Normal audio/video and RGB	Audio/video from TV tuner
↦ 2/⇥ 2 🄼	Normal audio/video and S video	Audio/video from selected source
⇥ 3, ⇥ 3 🄱 ⇥ 3 🄲	Normal audio/video and S video	No output
↦ 🄺	No inputs	Audio from selected source.

Connecting Headphones

Plug in the headphones to the socket 🎧 🄰 on the front of the TV.

About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

Notes on connections:

- If the picture or sound is distorted, move the VCR away from the TV.
- When connecting a monaural VCR, connect only the white jack to both the TV and VCR.
- Select 'TV' for output in the 'VIDEO CONNECTION' menu if you connect a decoder to ↦ 2/⇥ 2 🄼 (see page 34).

Selecting Input and Output Signals

This section explains how to select the output signal from ⇨ 2/-⊛ 2 M and how to select and view the input. You can use direct access buttons -⊃ ⑳ E to select the input or the menu system to select input and output.

Selecting Input Signals With Direct Access Buttons

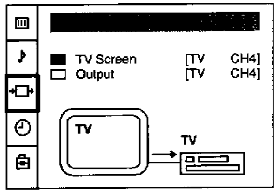
Press -⊃ ⑳ E repeatedly .
Press ▢ ⑥ to restore the normal TV picture.

Symbol on the screen	Input Signal
-⊃ 1	Audio/video through Euro AV connector L
-⊛	RGB through Euro AV connector L
-⊃ 2	Audio/video through Euro AV connector M
-⊛ 2	S video through Euro AV connector M
-⊃ 3	Audio/video through the phono jacks C
-⊛ 3	S video through the 4 pin DIN B

Selecting With the Video Connection Menu

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select -▢- for "Video Connection" then push to yellow.



3 Push to blue or green to select 'TV Screen' (input source for the TV Screen) or 'Output' (output source for ⇨ 2/-⊛ 2 M) then push to yellow ⑰.

4 Push to red or yellow repeatedly to select the desired input or output source then press the joystick ⑰.

5 Press the MENU button ⑮ to restore the normal TV picture.

Note: If you select 'AUTO'for output, the output source automatically becomes the same as the desired input source.

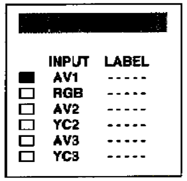
Using AV Label Preset

This function enables you to label the input sources using up to five characters (letters or numbers).

1 Press the MENU button ⑮.

2 Push joystick ⑰ to blue or green to select the symbol ⊟ on the screen then push to yellow.

3 Push to blue or green to select 'AV Label Preset' then push to yellow.



4 Push to blue or green to select the desired input source then push to yellow.

5 Push to blue or green to select a letter or number then push to yellow (select '-' for a blank).
Select the other four characters in the same way.

6 After selecting all the characters, press the joystick ⑰.

7 Repeat steps 4 to 6 to label other input sources.

8 Press the MENU button ⑮ to restore the normal TV screen.

Remote Control of Other Sony Equipment

You can control other Sony remote controlled equipment using the buttons ❷ on the Remote Commander.

1 Set the VTR 1/2/3 MDP selector according to the equipment
VTR 1: Beta VCR
VTR 2: 8mm VCR
VTR 3: VHS VCR
MDP: Video Disk Player

2 Use the buttons ❷ to operate the equipment.

Notes:
- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander
- If the equipment does not have a certain function, the corresponding button on the Remote Commander does not work.

Troubleshooting

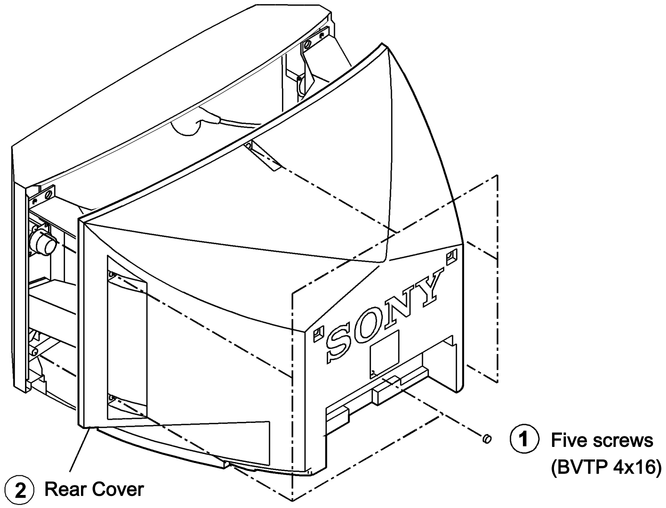
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	•Plug the TV in. •Press ⏻ I on the TV. (If ⏻ indicator H is on, press ▢ ❻ or a programme number ㉓ on the Remote Commander.) •Check the aerial connection. •Check if the selected video source is on. •Turn the TV off for 3 or 4 seconds then turn it on again using ⏻ I.
Poor or no picture (screen is dark), but good sound	•Press MENU ⓯ to enter the 'PICTURE CONTROL' menu and adjust 'Contrast', 'Brightness' and 'Colour'.
Poor picture quality when watching an RGB video source.	•Press ⇥ ⑳ E repeatedly to select ⇥.
Good picture but no sound	•Press ⊿ + ⓰ F. •If 🔇 is displayed on the screen, press 🔇 ❶. •Check the speaker lead connections.
No colour for colour programmes	•Press MENU ⓯ to enter the 'PICTURE CONTROL' menu, select 'Reset' then press the joystick ⓱.
Remote Commander does not function.	•Replace the batteries

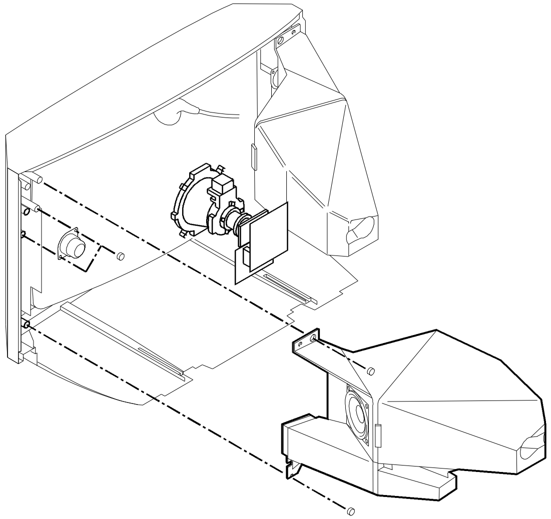
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2
DISASSEMBLY

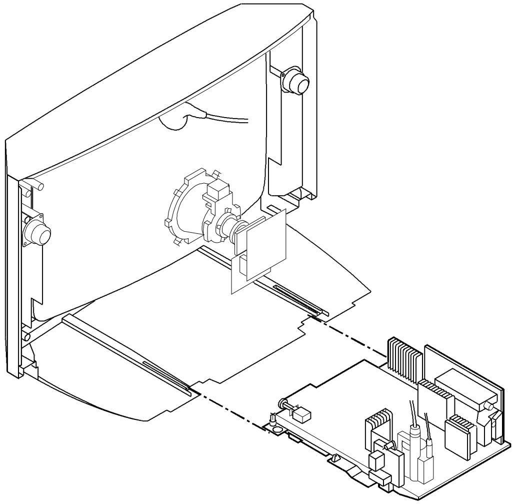
2-1. REAR COVER REMOVAL


① Five screws
(BVTP 4x16)
② Rear Cover

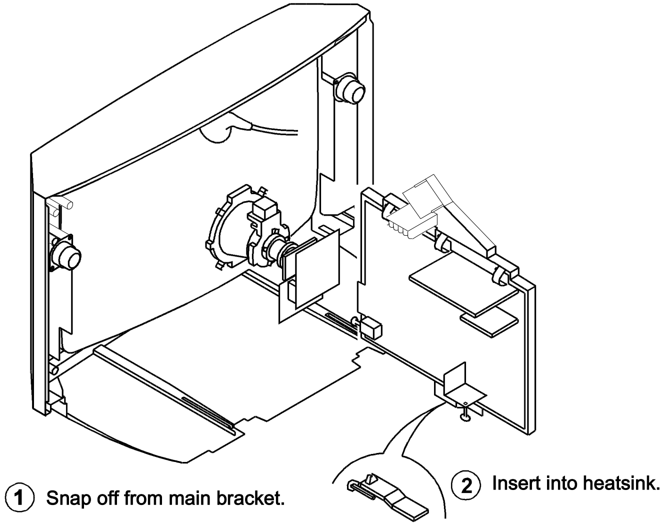
2-2. SPEAKER REMOVAL



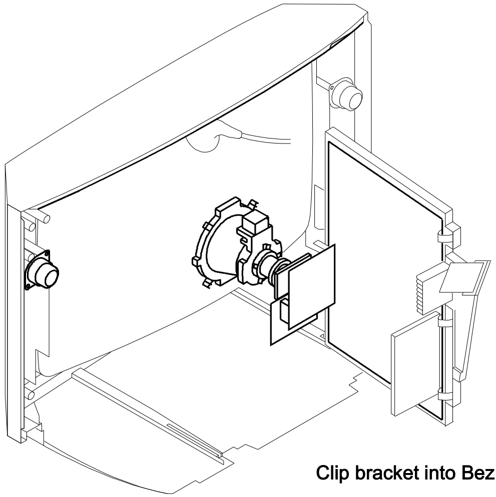
2-3. CHASSIS ASSY REMOVAL



2-4-1. SERIVCE POSITION (1)

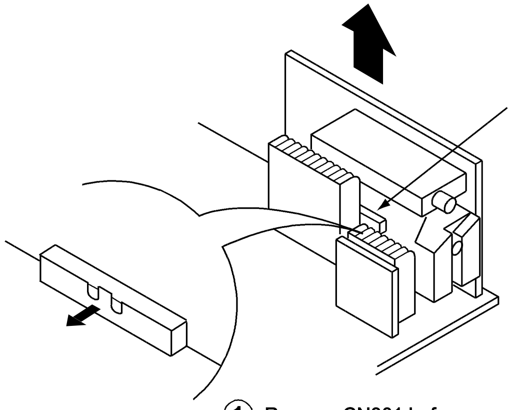

① Snap off from main bracket.
② Insert into heatsink.

2-4-2. SERVICE POSITION (2)



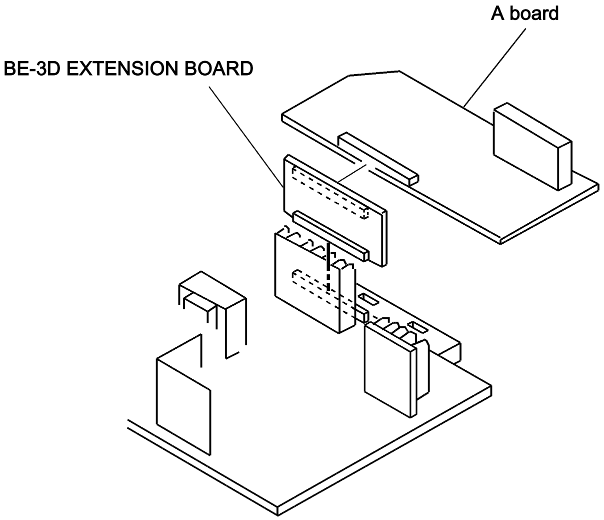
Clip bracket into Beznet.

2-5. A BOARD REMOVAL

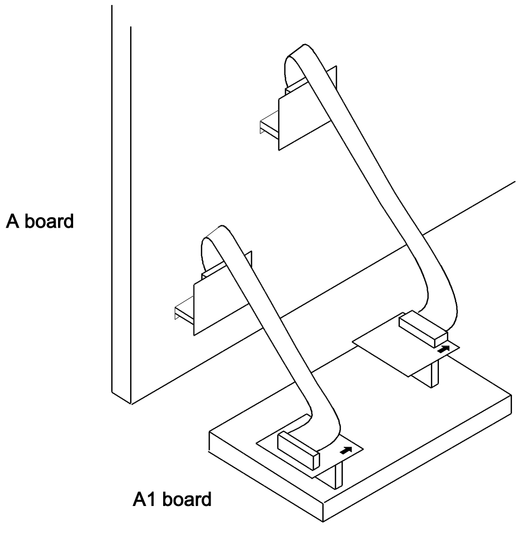


① Remove CN301 before removing A board.

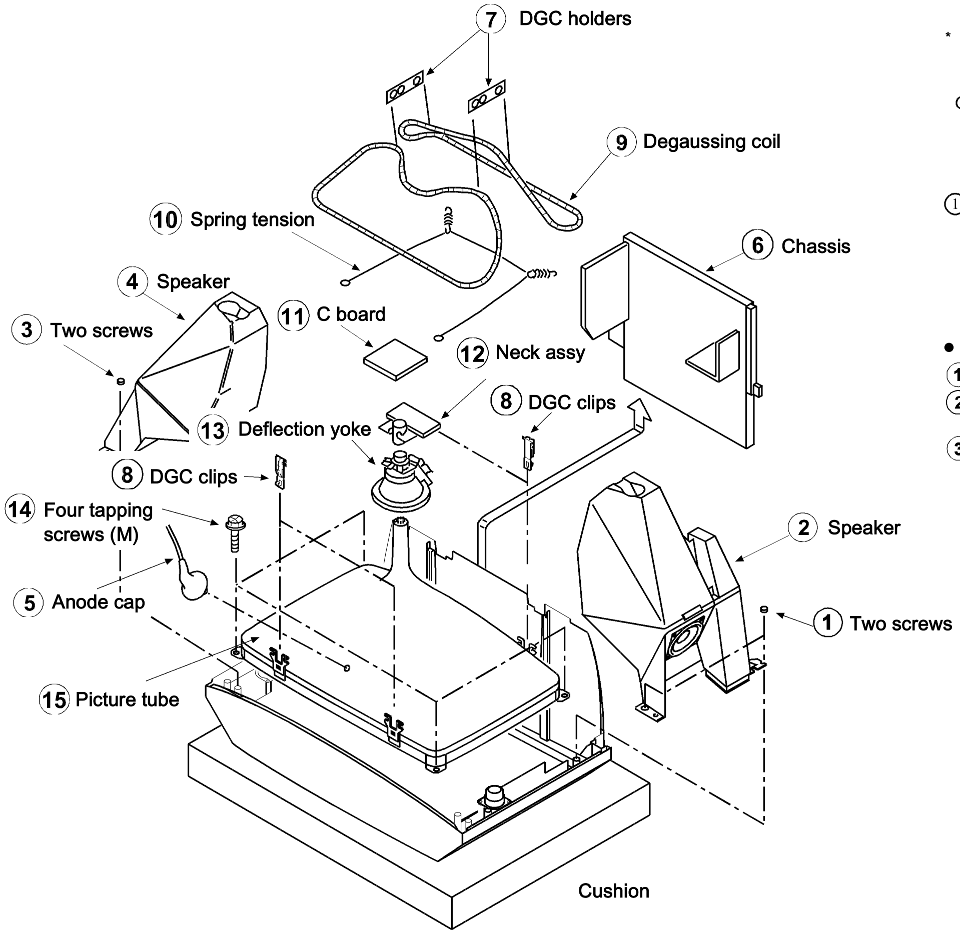
2-6. A EXTENSION BOARD


A board
BE-3D EXTENSION BOARD

2-7. A1 EXTENSION BOARDS


A board
A1 board

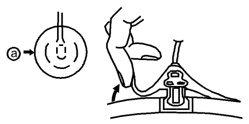
2-8. PICTURE TUBE REMOVAL


⑦ DGC holders
⑨ Degaussing coil
⑩ Spring tension
⑥ Chassis
④ Speaker
⑪ C board
③ Two screws
⑫ Neck assy
⑧ DGC clips
⑬ Deflection yoke
⑧ DGC clips
⑭ Four tapping screws (M)
② Speaker
⑤ Anode cap
① Two screws
⑮ Picture tube
Cushion

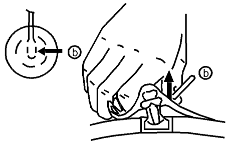
• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

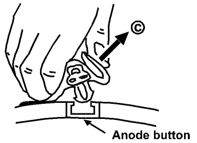
* REMOVING PROCEDURES.



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ


ⓒ
Anode button

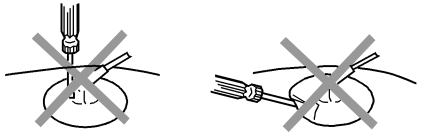
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don’t turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed circuit, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note : There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.

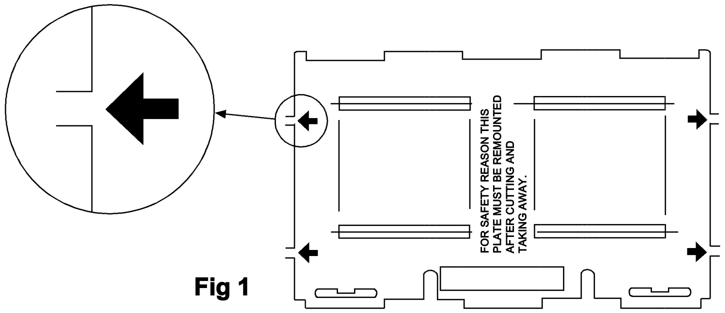

FOR SAFETY REASON THIS PLATE MUST BE REMOUNTED AFTER CUTTING AND TAKING AWAY.

Fig 1

! For safety reasons, on no account should the plates be removed and not refitted after servicing.

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.
The plates are identified by markings A-B-C-D-E on their top side.

1. Identify the plate by locating its marking.
2. Turn the plate over noting where the marking is located.
3. Locate the corresponding marking indicated on the main chassis bracket. See Fig 2.
4. Refit the plate as indicated in Fig 3 with the markings located next to each other.

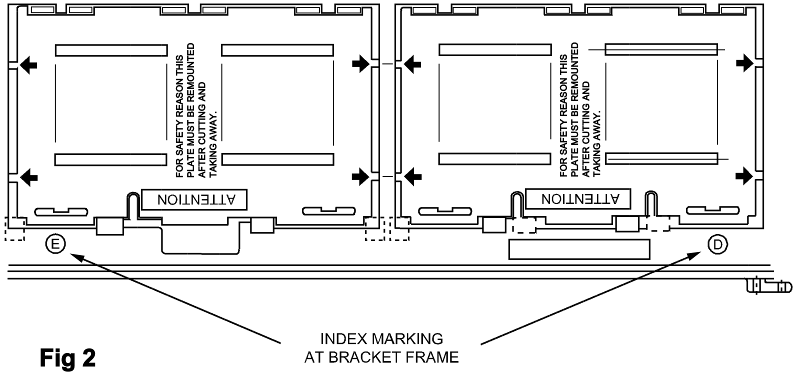

FOR SAFETY REASON THIS PLATE MUST BE REMOUNTED AFTER CUTTING AND TAKING AWAY.
ATTENTION
FOR SAFETY REASON THIS PLATE MUST BE REMOUNTED AFTER CUTTING AND TAKING AWAY.
ATTENTION
E
D
INDEX MARKING AT BRACKET FRAME

Fig 2

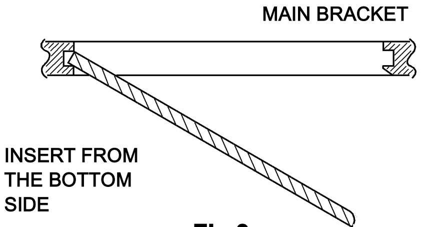

MAIN BRACKET
INSERT FROM THE BOTTOM SIDE

Fig 3

In the event of the plates requiring to be removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out.

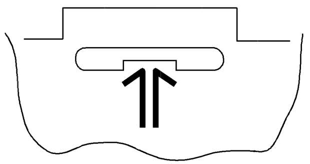


Fig 4

SECTION 3
SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

◑ Contrast .... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

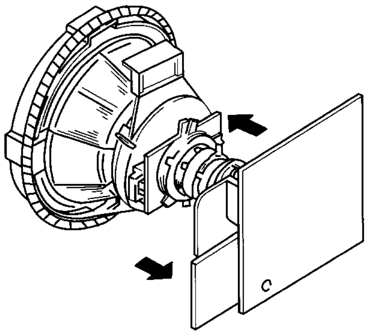


Fig. 3-1

Fig. 3-2

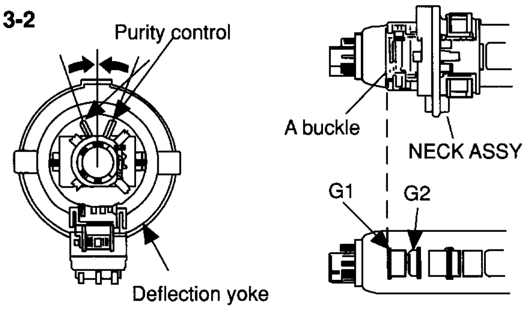
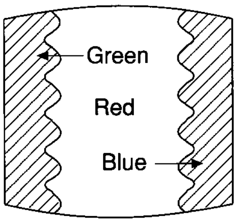

Purity control
A buckle
NECK ASSY
G1
G2
Deflection yoke

Fig. 3-3


Green
Red
Blue

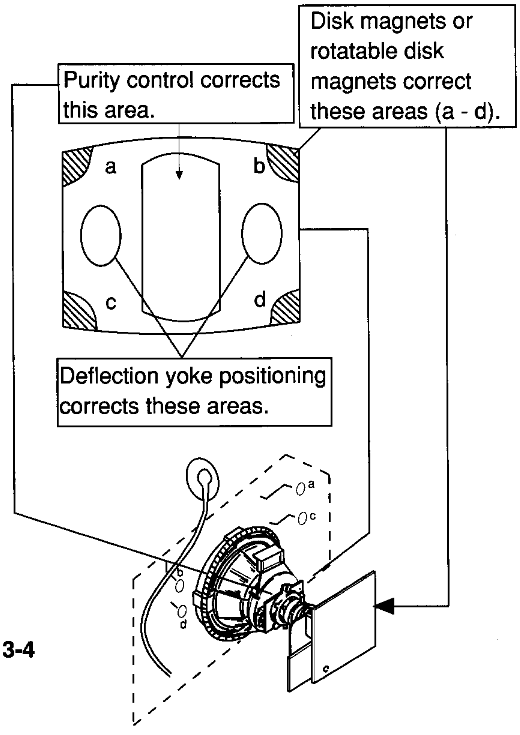

Disk magnets or rotatable disk magnets correct these areas (a - d).
Purity control corrects this area.
a
b
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d
c

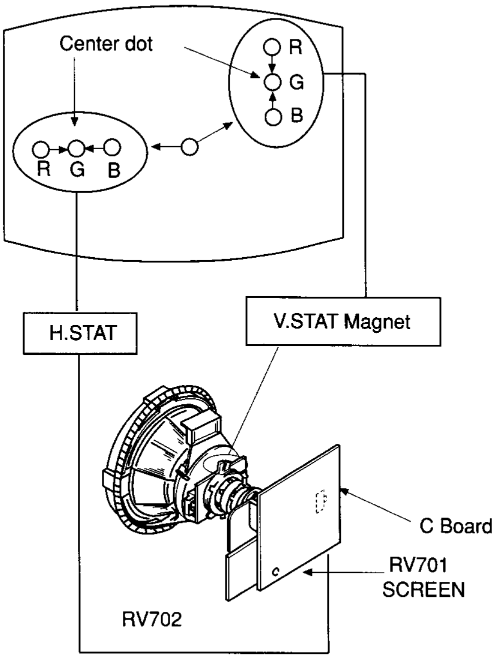
Fig. 3-4

3-2. CONVERGENCE

Preparation:

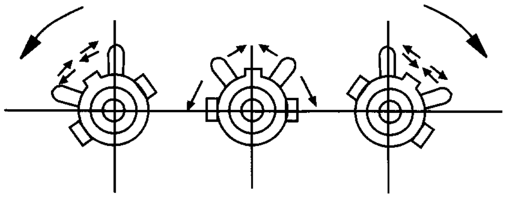
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

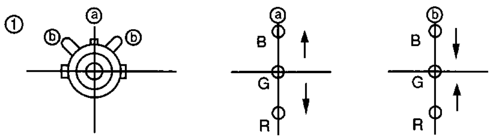


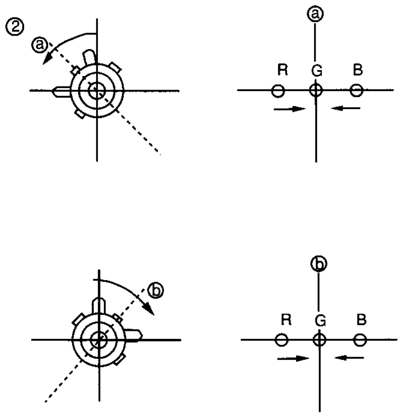
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

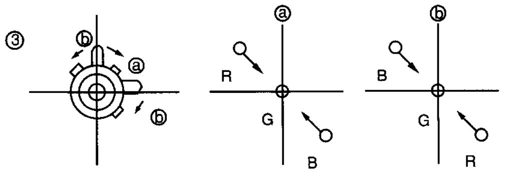
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



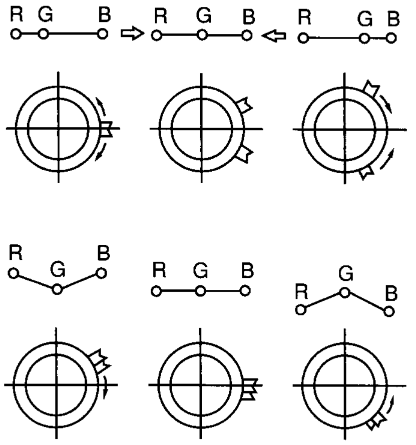
4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

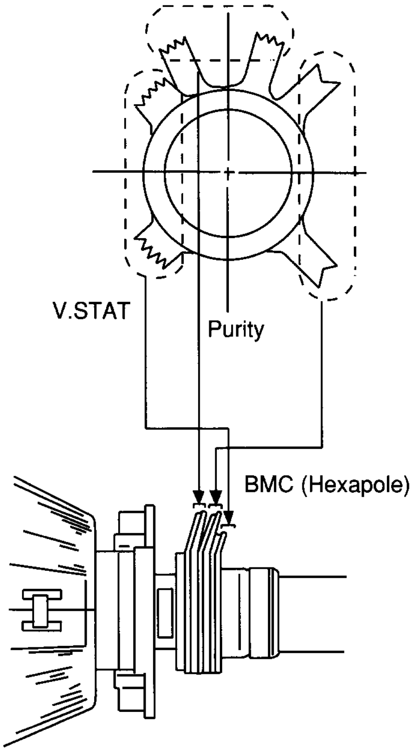






- Operation of BMC (Hexapole) Magnet


R G B
R G B
R G B
R G B
R G B
R G B


V.STAT
Purity
BMC (Hexapole)

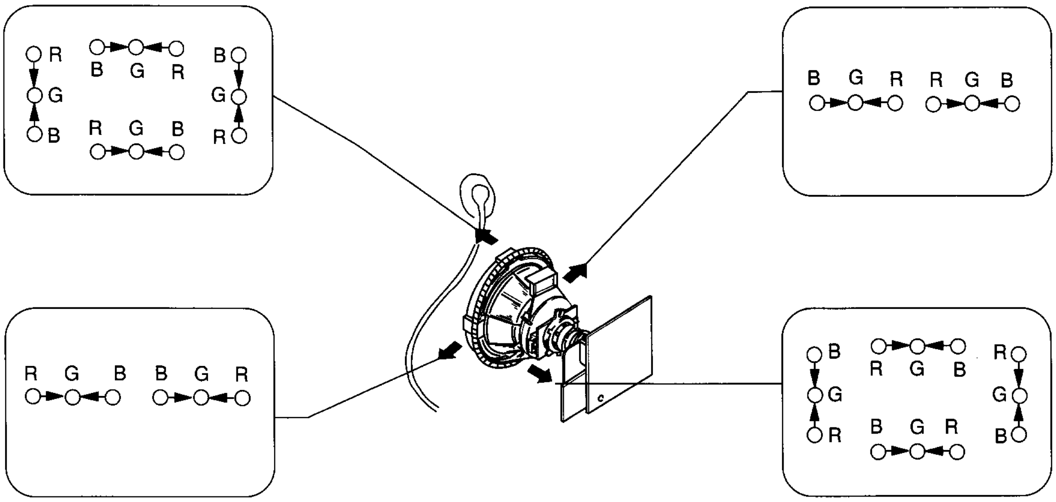
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment.

Preparation:

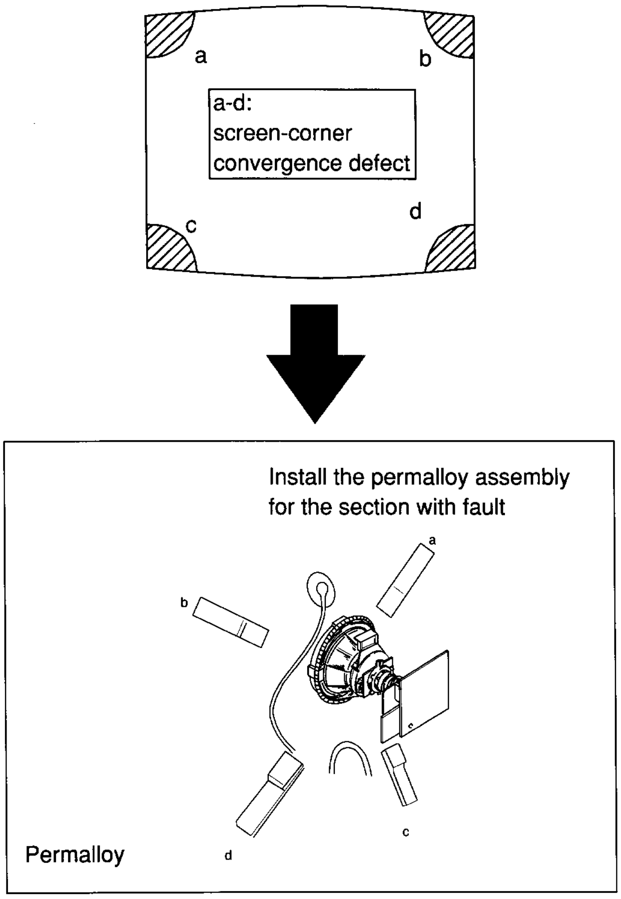
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Re-install the deflection yoke spacer.


R G B
B G R
R G B
B G R
B G R
R G B
R G B
B G R
R G B
B G R
B G R
R G B
B G R
R G B

(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.


a
b
a-d:
screen-corner
convergence defect
c
d
Install the permalloy assembly for the section with fault
a
b
c
d
Permalloy

3-3. WHITE BALANCE

G2 Setting

1. Switch the set into AV mode (apply no signal to the AV connectors).
2. Connect a Volt Meter to Test Point 1 on the A board.
3. Adjust RV01 to obtain a voltage of 3.0V ±0.3V.

White balance adjustment

1. Input an all white signal from the pattern generator.
2. Enter into the service mode.
3. Enter into Picture Adjustment service menu.
4. Select sub-contrast and adjust to 7.
5. Select the Green Drive and adjust so that the white balance becomes optimum.
6. Select the Blue Drive and adjust so that the white balance becomes optimum.
7. Press the TV button to return to TV operation.

PICTURE ADJUSTMENT

AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap Fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

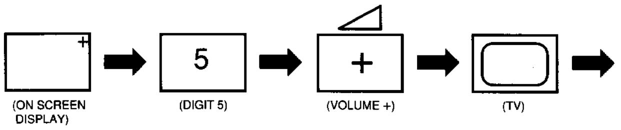
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-862.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



"TT-- " will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press MENU on the commander to obtain the following menu on the screen.

TEST MENU

> Picture adjustment
Geometry
Wide
MSP
IC status
Current TV status

4. Move to the corresponding adjustment using the ◈ button on the commander.
5. Move the button to the right ◈ to enter the selected adjustment.
6. Turn off the power to quit the service mode when adjustments are completed.

PICTURE ADJUSTMENT

AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap Fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj

WIDE

V Aspect	47
V Scroll	31
Upper V Lin	0
Lower V Lin	0
Left Blanking	1
Right Blanking	11

MSP	
AGC ON/OFF	ON
Constant gain CDB	0
FM prescale FMP	36
Zwei mono-st WHI	36
Zwei st-mono WLO	18
Zwei mono-bi WMH	36
Zwei bi-mono WLO	18
Time zwei WML	51
Fawct limit	10
Fawct soll init FAW	12
Fawer tol	2
Nicam Err Max CCT	10
Nicam Err Min	0
Nicam Prescale NIP	97
Time Nicam	31
Carrier mute CRM	OFF
Audio clock ACO	HIZ
Scart prescale	25
Scart volume	64

IC STATUS (CXA2000 / CXA2040)	
CXA2000	
H lock	1
IKR	1
VNG	0
X-RAY	0
Colour system	3
CV1 Sync	1
CXA2040	
Sync sep	1
S1 mode pin	01
S2 mode pin	01
TUNER	
Tuner status	01101011

TV STATUS	
Text system	C TEXT/TV TEXT
Dolby	NO/YES
Text language set	WEST/EAST/RUSSIAN
Menu language set	WEST/EAST/RUSSIAN
Destination	B/D/U/K/L/E/A/R
Scart 16:9	OFF/ON
RGB priority	OFF/ON
Ageing	OFF/ON
Size	28/24
Colour trap sw	SECAM/ALL
Velocity mod	ON/OFF
AFT STATUS	WINDOW/HIGH/LOW

SUB BRIGHTNESS ADJUSTMENT

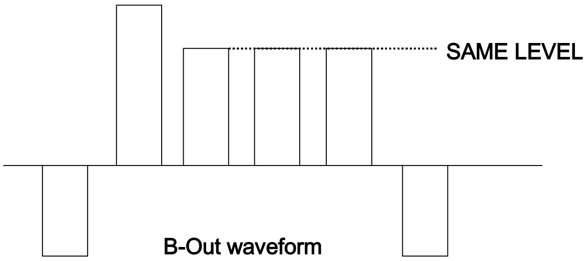
1. Input a Phillips pattern.
2. Set the picture control to minimum.
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the Sub-Brightness data so that there is barely a difference between the 0 IRE and 10 IRE signal.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a black background.
2. Set the picture control to maximum.
3. Connect an oscilloscope to pin 3 of CN301 (A board).
4. Enter into the Picture Adjustment Service Menu.
5. Adjust the Sub-contrast data to obtain a black to white amplitude of 2.50 volts.

SUB COLOUR ADJUSTMENT

1. Receive a PAL Colour Bar video signal.
2. Connect an oscilloscope to pin 3 of CN301 (A board).
3. Enter into the Picture Adjustment Service Menu.
4. Adjust the sub colour data so that cyan, magenta and blue colour bars are of equal height.



NOTE: The data shown in the TV STATUS table is dependant on destination, screen size and country.

SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

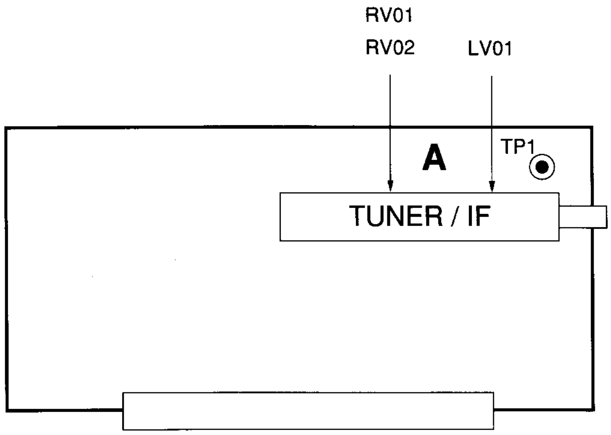
1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 38.9 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the I.F coil (LV01) until the "AFT Status" indicates a " Window " condition.

SYSTEM L BAND 1 I.F ADJUSTMENT

1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 34.2 MHz.
3. Enter into the service mode and select "Current TVStatus".
4. Adjust the RV02 until the "AFT Status" indicates a " Window " condition.

TUNER AGC ADJUSTMENT

1. Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
2. Measure the voltage at test point 1 (A board).
3. Adjust RV01 to obtain a voltage of 3.0V ± 0.3V.



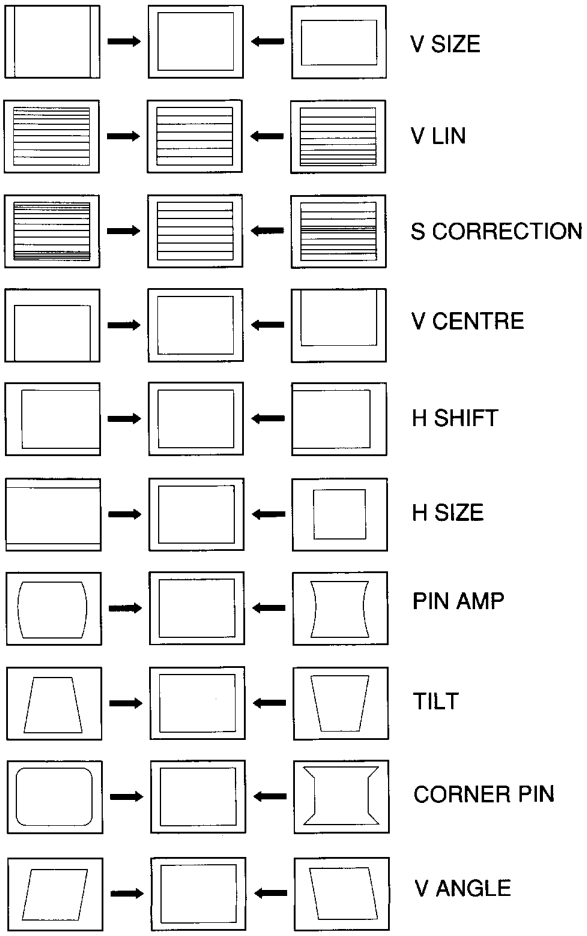
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the Geometry Adjustment Service Menu.
2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY ADJUSTMENT

V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj



4-2. TEST MODE 2:

Is available by pressing Test button twice, OSD " TT " appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

00	Switch test mode 2 off
01	Picture maximum.
02	Picture minimum.
03	Volume 35%
04-05	Dummy
06	Volume 80%
07	Set ageing Condition (Volume min., Picture max., Brightness max)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT mode is switched off.)
09	'Menu' Flag reset
10	Tenth entry is deleted.
11-12	Dummy
13	Forced AV 16:9 detection on/off
14	Display TV configeration
15	Read factory setting from NVM, reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last power memory).
16	Dummy
17	Preset label for AV Sources.
18	RGB Priority on/off.
19	Clear all preset labels.
20	Tenth entry is deleted.
21	Sub Contrast.
22	Sub Colour.
23	Sub Brightness.
24	Set destination = U RGB Priority = off.
25	Set destination = D RGB Priority = off.
26	Set destination = B RGB Priority = on.
27	Set destination = K RGB Priority = off.
28	Set destination = L RGB Priority = off.
29	Set destination = E RGB Priority = off.
30	Tenth entry is deleted.
31	Set destination = A RGB Priority = on.
32	Set destination = R
33-35	Dummy
36	Rotation coil test
37	Select 25" chassis
38	Select 25" chassis
39	Trap SW select
40	Tenth entry is deleted.
41	Re-initialise NVM.
42	Default program into NVM.
43	Initialise CXA2000 settings.
44	Initialise all favorite pages to be 100.
45	Channel locks off.

46	IR channel presetting mode. The channel presetting can be done by a speacial IR transmitter (dealer commander.)
47	Reset NVM testbyte.
48	Set NVM testbyte to 44h.
49	Erase the NVM test byte (This byte detects already stored NVM's). After selecting this function, switch TV off and on, the NVM will be preset by the micro controller.
50	Tenth entry is deleted.
51	Text interlace ODD.
52	Text interlace EVEN.
53	Auto picture on.
54	Auto picture off.
55	Auto cutoff enable.
56	Auto cutoff disable.
57-58	Dummy
59	Lock to centre frequency.
60	Tenth entry is deleted.
61	Turn on Dolby Prologic mode.
62	White noise to left speaker.
63	White noise to right speaker.
64	White noise to centre speaker.
65	White noise to surround speaker.
66	Set standard stereo mode.
67	Set prologic normal mode.
68	Set prologic wide mode.
69	Set prologic phantom mode.
70	Tenth entry is deleted.
71	Lumisponder mode 1
72	Lumisponder mode 2
73	Lumisponder off
74	Text centre adjustment
75	Reset picture settings
76	Dummy
77	Reset sound settings
78-79	Dummy
80	Tenth entry is deleted.
81	VM on.
82	VM off.
83	Set picture blanking lever delay 40ms.
84	Set picture blanking lever delay 80ms.
85	Set picture blanking lever delay 160ms.
86-89	Dummy.
90	Tenth entry is deleted.
91-99	Dummy.

Note : In Test Mode the Menu display is switchable by the speaker mute (off) button.

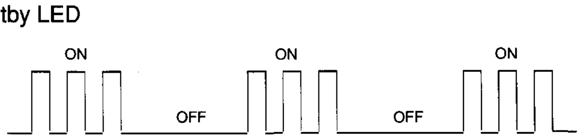
4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3D chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1, non fatal errors are reported with this method.

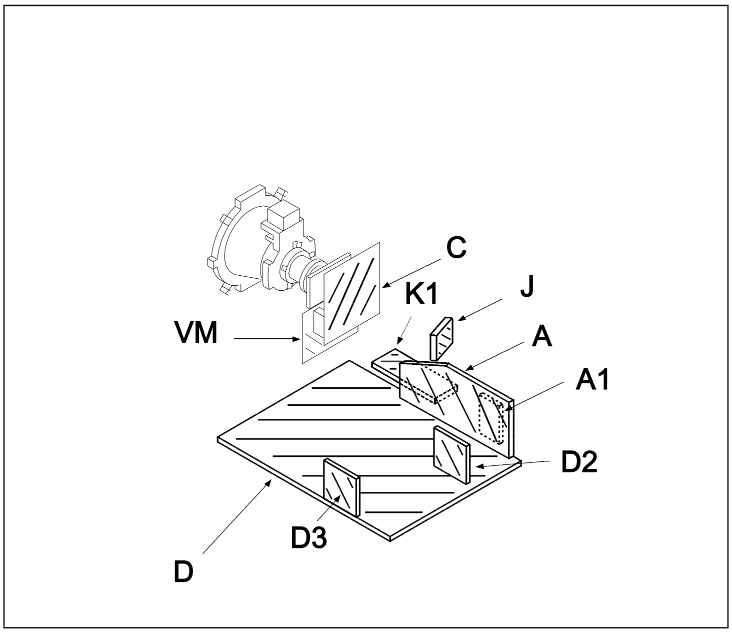
Table 1

ERROR	LED ERROR COUNT
Protection circuit trip < ANY TIME >	02
IIC SCL LOW < POWER UP ONLY >	03
IIC SDA LOW < POWER UP ONLY >	04
IIC SDA & SCL LOW < POWER UP ONLY >	05
Jungle/Choroma controller no acknowledge < POWER UP ONLY >	06
Video Switch no acknowledge < POWER UP ONLY >	07
Tuner no acknowledge	08
MSP no acknowledge	09
NVM no acknowledge	10
M3L TXD LOW < POWER UP ONLY >	11
M3L RXD LOW < POWER UP ONLY >	12
M3L ENABLE LOW < POWER UP ONLY >	13
M3L TXD & RXD LOW < POWER UP ONLY >	14
Compact Text test fail < POWER UP ONLY >	15
AV switch cannot power on reset	16
Cannot initialise jungle	17
NVM acknowledge fail after initialisation	18
Multiple devices with no acknowledge < POWER UP ONLY >	19
Compacttext run-time failure	20
AVSWITCH response failure after power up	21
JUNGLE/CHROMA controller response failure after power up	22
CompactText does not respond	23

Flash Timing Example : e.g. error number 3.



5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
  k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4 W

- -WW- : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth - ground.
- ⏚ : earth - chassis.
- ╪ : no mounted.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

Note : Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

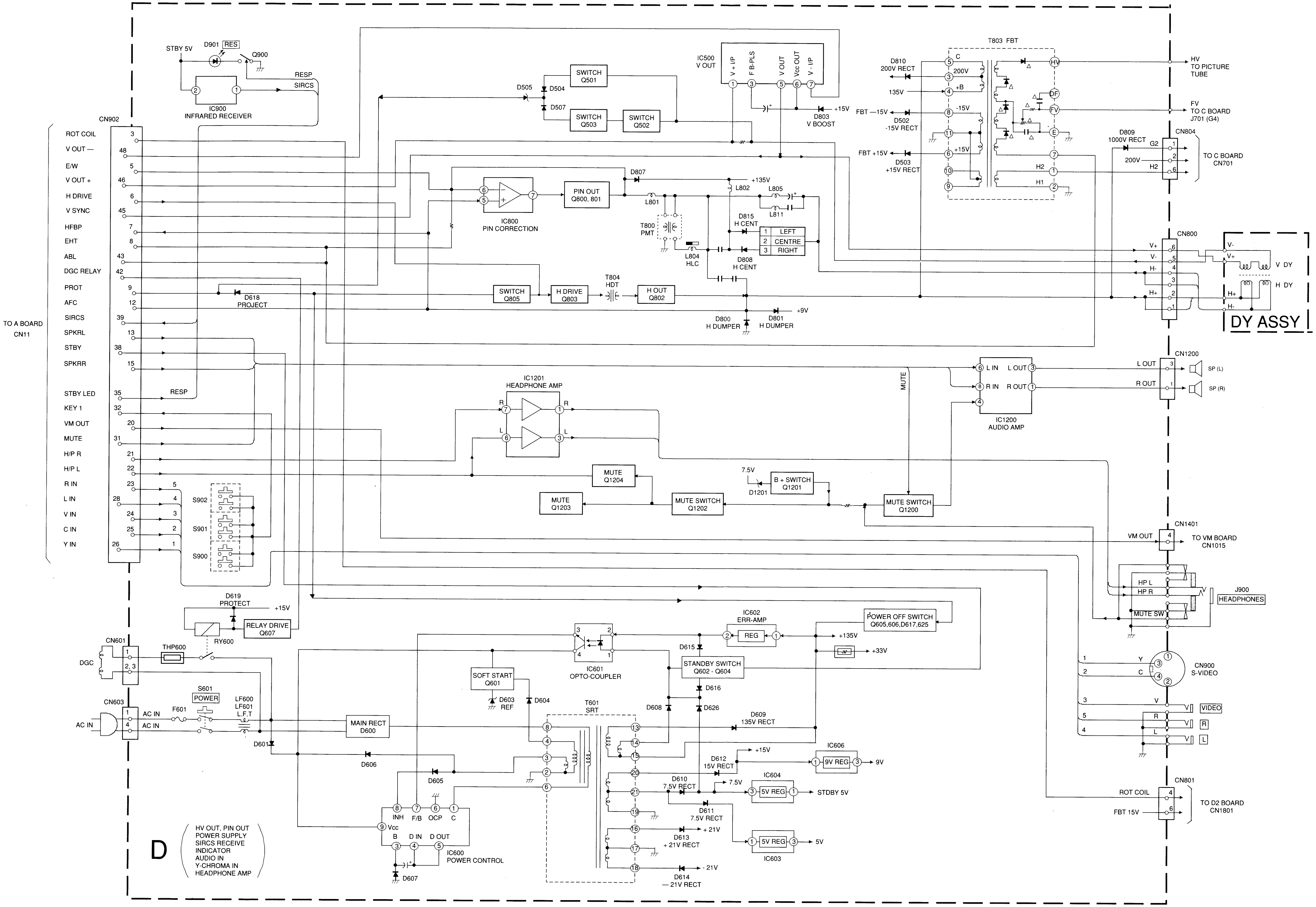
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- ▬ : B+ bus.
- ➡ : signal path. (RF)

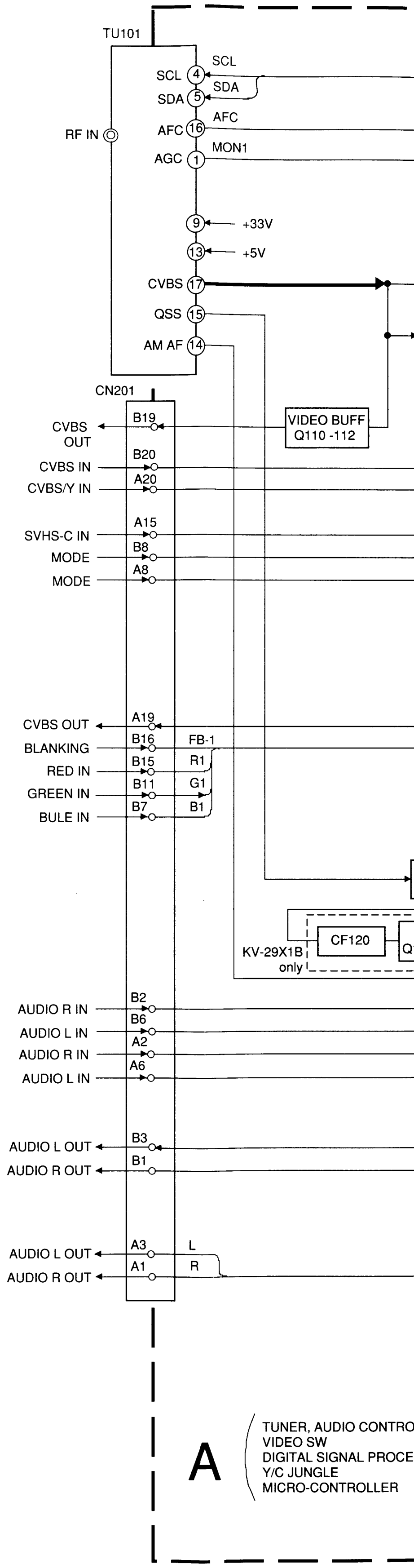
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM (1)

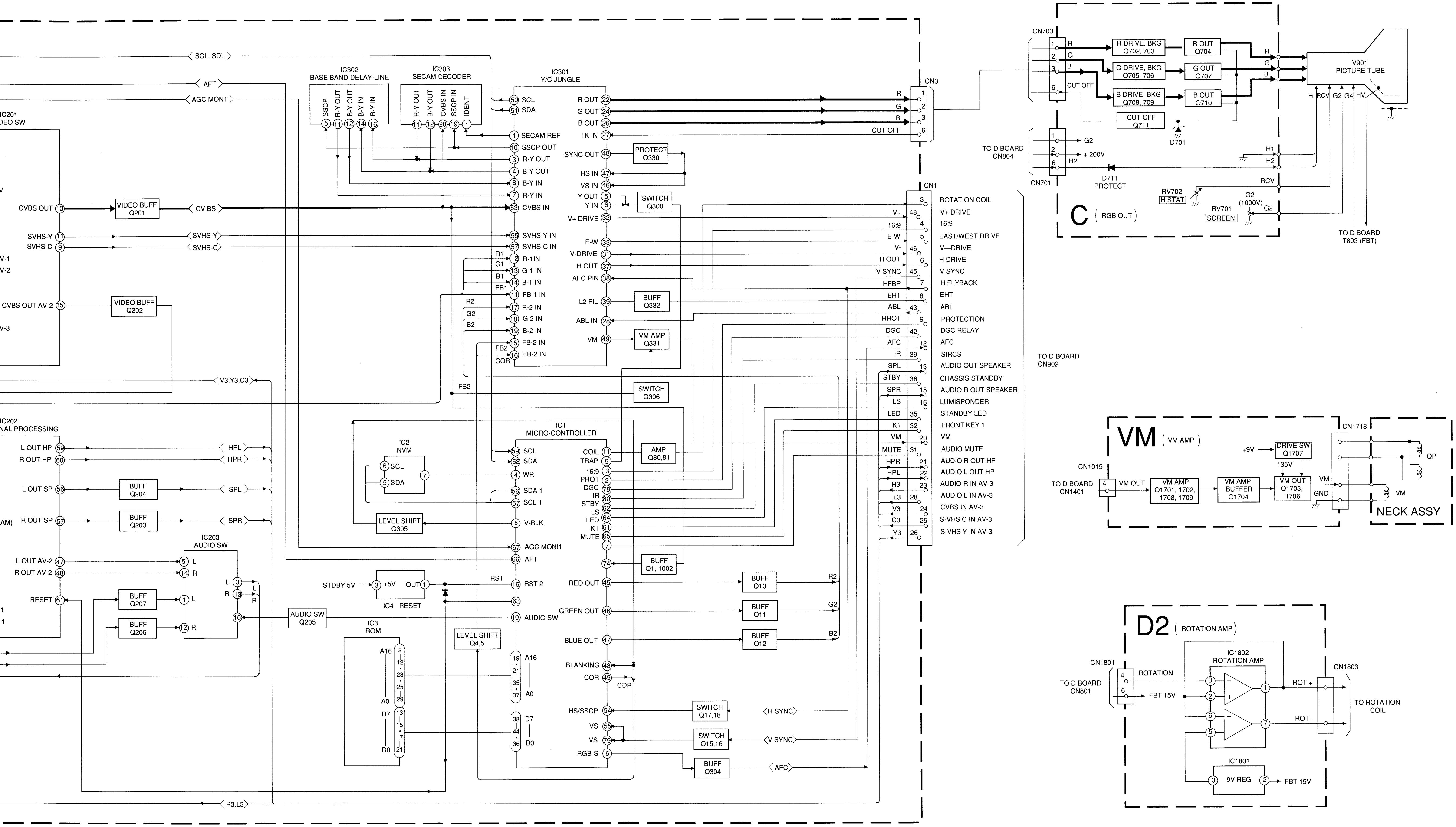


TO A BOARD CN11
CN902
ROT COIL 3
V OUT — 48
E/W 5
V OUT + 46
H DRIVE 6
V SYNC 45
HFBP 7
EHT 8
ABL 43
DGC RELAY 42
PROT 9
AFC 12
SIRCS 39
SPKRL 13
STBY 38
SPKRR 15
STBY LED 35
KEY 1 32
VM OUT 20
MUTE 31
H/P R 21
H/P L 22
R IN 23
L IN 28
V IN 24
C IN 25
Y IN 26
STBY 5V
D901 RES
Q900
IC900 INFRARED RECEIVER
RESP
SIRCS
S902
S901
S900
D505
D504
D507
SWITCH Q501
SWITCH Q503
SWITCH Q502
IC500 V OUT
V + I/P
F B-PLS
V OUT
Vcc OUT
V - I/P
D803 V BOOST
+15V
T803 FBT
D810 200V RECT
135V
FBT —15V
D502 -15V RECT
FBT +15V
D503 +15V RECT
200V
+B
-15V
+15V
HV TO PICTURE TUBE
FV TO C BOARD J701 (G4)
D809 1000V RECT
G2
200V
H2
H1
CN804
TO C BOARD CN701
D807
+135V
L802
L805
L801
L811
IC800 PIN CORRECTION
PIN OUT Q800, 801
T800 PMT
D815 H CENT
LEFT
CENTRE
RIGHT
L804 HLC
D808 H CENT
T804 HDT
SWITCH Q805
H DRIVE Q803
H OUT Q802
D618 PROJECT
D800 H DUMPER
D801 H DUMPER
+9V
CN800
V+
V-
H-
H+
V DY
H DY
DY ASSY
MUTE
IC1200 AUDIO AMP
L IN
L OUT
R IN
R OUT
CN1200
L OUT
R OUT
SP (L)
SP (R)
IC1201 HEADPHONE AMP
MUTE Q1204
MUTE Q1203
MUTE SWITCH Q1202
7.5V
D1201
B + SWITCH Q1201
MUTE SWITCH Q1200
CN1401
VM OUT
TO VM BOARD CN1015
HP L
HP R
MUTE SW
J900 HEADPHONES
D619 PROTECT
+15V
RELAY DRIVE Q607
RY600
CN601
DGC
THP600
CN603
AC IN
S601 POWER
F601
LF600 LF601 L.F.T
D601
MAIN RECT D600
D606
D605
IC602 ERR-AMP
REG
+135V
+33V
POWER OFF SWITCH Q605,606,D617,625
IC601 OPTO-COUPLER
SOFT START Q601
D603 REF
D604
D615
STANDBY SWITCH Q602 - Q604
D616
D626
D608
T601 SRT
D609 135V RECT
D612 15V RECT
+15V
IC606 9V REG
9V
D610 7.5V RECT
7.5V
IC604 5V REG
STDBY 5V
D611 7.5V RECT
IC603 5V REG
5V
D613 + 21V RECT
+ 21V
D614 — 21V RECT
- 21V
INH F/B OCP C
Vcc B D IN D OUT
IC600 POWER CONTROL
D607
CN900 S-VIDEO
Y
C
VIDEO
R
L
CN801
ROT COIL
FBT 15V
TO D2 BOARD CN1801
D
HV OUT, PIN OUT
POWER SUPPLY
SIRCS RECEIVE
INDICATOR
AUDIO IN
Y-CHROMA IN
HEADPHONE AMP

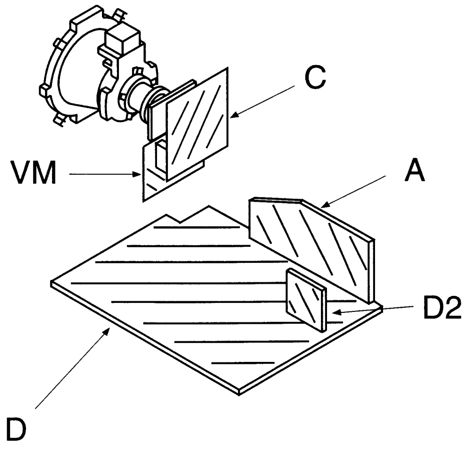
BLOCK DIAGRAM (



TU101
RF IN
SCL
SDA
AFC
AGC
MON1
+33V
+5V
CVBS
QSS
AM AF
CN201
CVBS OUT
VIDEO BUFF Q110 -112
CVBS IN
CVBS/Y IN
SVHS-C IN
MODE
MODE
CVBS OUT
BLANKING
RED IN
GREEN IN
BULE IN
FB-1
R1
G1
B1
KV-29X1B only
CF120
AUDIO R IN
AUDIO L IN
AUDIO R IN
AUDIO L IN
AUDIO L OUT
AUDIO R OUT
AUDIO L OUT
AUDIO R OUT
L
R
A
TUNER, AUDIO CONTRO
VIDEO SW
DIGITAL SIGNAL PROCE
Y/C JUNGLE
MICRO-CONTROLLER


SCL, SDL
AFT
AGC MONT
IC201
VIDEO SW
CVBS OUT
VIDEO BUFF Q201
CV BS
SVHS-Y
SVHS-C
CVBS OUT AV-2
VIDEO BUFF Q202
V3,Y3,C3
IC202
SIGNAL PROCESSING
L OUT HP
R OUT HP
HPL
HPR
L OUT SP
BUFF Q204
SPL
R OUT SP
BUFF Q203
SPR
IC203
AUDIO SW
L OUT AV-2
R OUT AV-2
RESET
BUFF Q207
BUFF Q206
AUDIO SW Q205
R3,L3
IC302
BASE BAND DELAY-LINE
SSCP
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
IC303
SECAM DECODER
CVBS IN
SSCP IN
IDENT
IC301
Y/C JUNGLE
SCL
SDA
SECAM REF
SSCP OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
CVBS IN
SVHS-Y IN
SVHS-C IN
R-1IN
G-1 IN
B-1 IN
FB-1 IN
R-2 IN
G-2 IN
B-2 IN
FB-2 IN
HB-2 IN
R1
G1
B1
FB1
R2
G2
B2
FB2
COR
R OUT
G OUT
B OUT
1K IN
SYNC OUT
PROTECT Q330
HS IN
VS IN
Y OUT
Y IN
SWITCH Q300
V+ DRIVE
E-W
V-DRIVE
H OUT
AFC PIN
L2 FIL
BUFF Q332
ABL IN
VM
VM AMP Q331
SWITCH Q306
CUT OFF
CN3
IC2
NVM
WR
SDA 1
SCL 1
LEVEL SHIFT Q305
IC1
MICRO-CONTROLLER
COIL
TRAP
16:9
PROT
DGC
IR
STBY
LS
LED
K1
MUTE
AMP Q80,81
V-BLK
AGC MONI1
BUFF Q1, 1002
STDBY 5V
+5V
OUT
IC4 RESET
RST
RST 2
AUDIO SW
IC3
ROM
A16
A0
D7
D0
LEVEL SHIFT Q4,5
RED OUT
GREEN OUT
BLUE OUT
BUFF Q10
BUFF Q11
BUFF Q12
BLANKING
CDR
HS/SSCP
VS
RGB-S
SWITCH Q17,18
SWITCH Q15,16
BUFF Q304
H SYNC
V SYNC
AFC
CN1
V+
E-W
V-
V SYNC
HFBP
EHT
ABL
RROT
DGC
AFC
IR
SPL
STBY
SPR
LS
LED
K1
VM
MUTE
HPR
HPL
R3
L3
V3
C3
Y3
ROTATION COIL
V+ DRIVE
16:9
EAST/WEST DRIVE
V—DRIVE
H DRIVE
V SYNC
H FLYBACK
EHT
ABL
PROTECTION
DGC RELAY
AFC
SIRCS
AUDIO OUT SPEAKER
CHASSIS STANDBY
AUDIO R OUT SPEAKER
LUMISPONDER
STANDBY LED
FRONT KEY 1
VM
AUDIO MUTE
AUDIO R OUT HP
AUDIO L OUT HP
AUDIO R IN AV-3
AUDIO L IN AV-3
CVBS IN AV-3
S-VHS C IN AV-3
S-VHS Y IN AV-3
TO D BOARD CN902
CN703
R DRIVE, BKG Q702, 703
G DRIVE, BKG Q705, 706
B DRIVE, BKG Q708, 709
R OUT Q704
G OUT Q707
B OUT Q710
CUT OFF Q711
D701
V901
PICTURE TUBE
H RCV G2 G4 HV
TO D BOARD CN804
CN701
G2
+ 200V
H2
D711 PROTECT
H1
RV702 H STAT
RCV
G2 (1000V)
RV701 SCREEN
C (RGB OUT)
TO D BOARD T803 (FBT)
VM (VM AMP)
CN1718
+9V
DRIVE SW Q1707
135V
CN1015
TO D BOARD CN1401
VM OUT
VM AMP Q1701, 1702, 1708, 1709
VM AMP BUFFER Q1704
VM OUT Q1703, 1706
GND
QP
NECK ASSY
D2 (ROTATION AMP)
CN1801
TO D BOARD CN801
ROTATION
FBT 15V
IC1802
ROTATION AMP
ROT +
ROT -
CN1803
TO ROTATION COIL
IC1801
9V REG
FBT 15V

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

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Pitch : 5 mm
Rating electrical power ¼ W

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> Ne les remplacer que par une piece portant le numero specifie.

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	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✕	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

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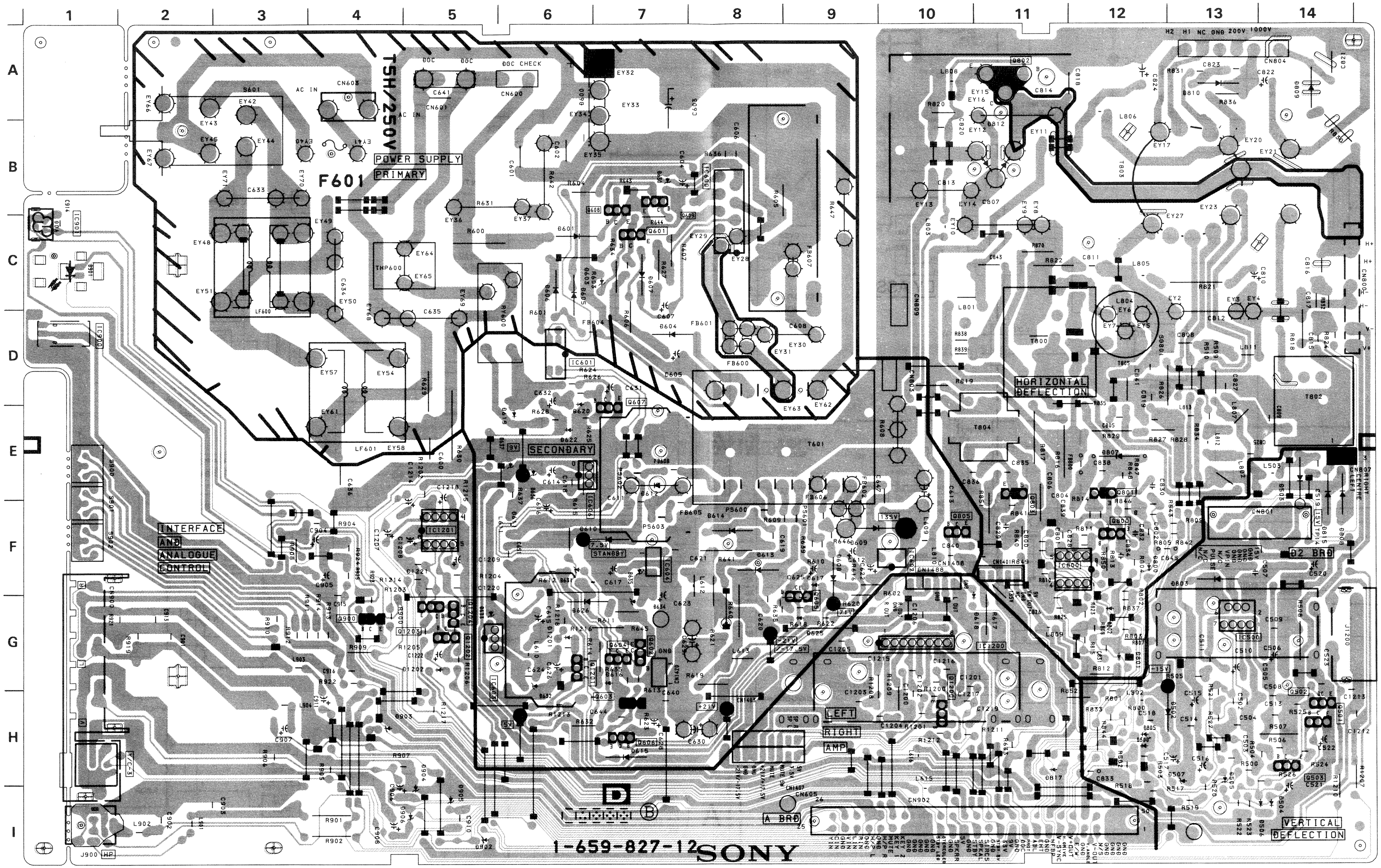
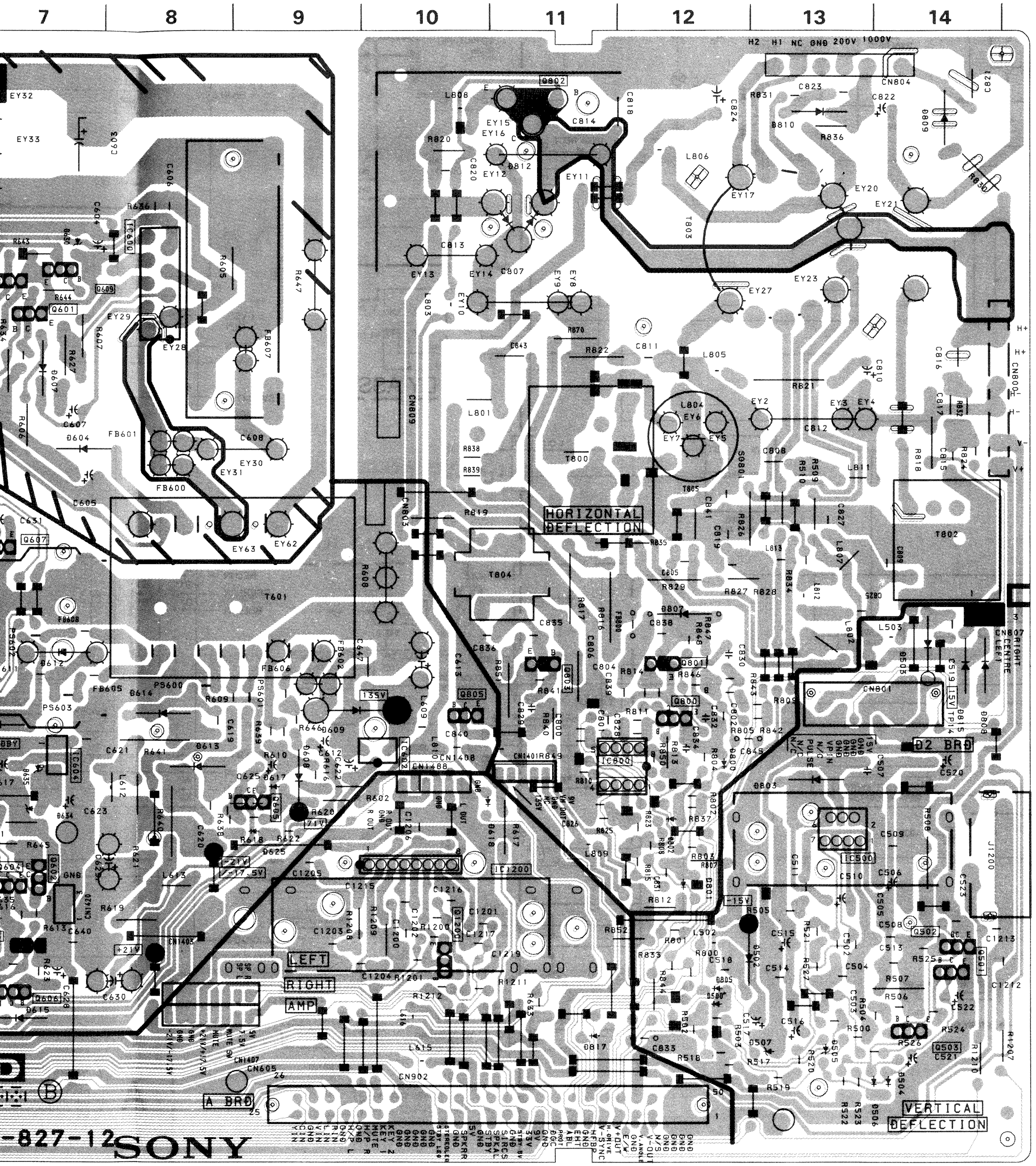
- Readings are taken with 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- ▬ : B+ bus.
- ⇨ : signal path. (RF)

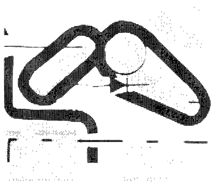
D [HV OUT, PIN OUT, POWER SUPPLY, CONTROL SW, AUDIO IN
Y-CHROMA IN, HEADPHONE IN, SIRCS RECEIVE, INDICAITON]

D Board



1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
T5H/250V
POWER SUPPLY
PRIMARY
F601
AC IN
DGC CHECK
SECONDARY
7.5V STANDBY
INTERFACE AND ANALOGUE CONTROL
HORIZONTAL DEFLECTION
VERTICAL DEFLECTION
LEFT
RIGHT
AMP
A BRD
D2 BRD
H2 H1 NC GND 200V 1000V
135V
-15V
1-659-827-12
SONY
J900 HP
Y/C-3


7
8
9
10
11
12
13
14
H2 H1 NC GND 200V 1000V
CN804
T802
T804
T601
IC800
IC1200
IC500
HORIZONTAL DEFLECTION
VERTICAL DEFLECTION
LEFT
RIGHT
AMP
A BRD
D2 BRD
-827-12
SONY



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

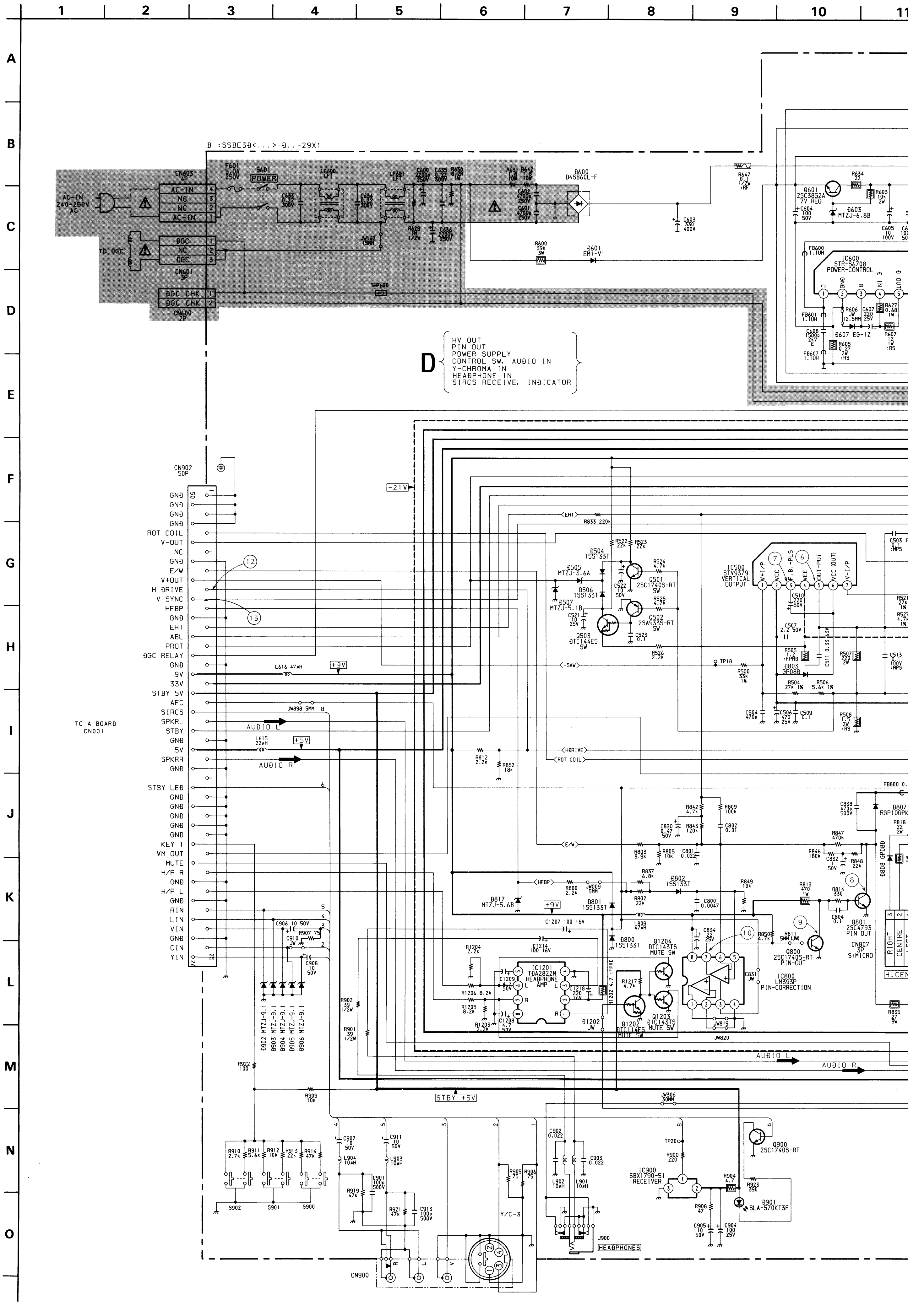
D BOARD

IC	
IC500	G-13
IC600	B-8
IC601	D-6
IC602	F-10
IC603	G-5
IC604	F-7
IC606	E-6
IC800	F-12
IC900	D-1
IC1200	G-10
IC1201	F-5

TRANSISTOR	
Q501	H-14
Q502	H-14
Q503	H-14
Q601	C-7
Q602	G-7
Q603	H-7
Q604	G-7
Q605	F-9
Q606	H-7
Q607	D-7
Q800	F-12
Q801	E-12
Q802	A-11
Q803	E-11
Q805	F-10
Q900	G-4
Q1200	H-10
Q1201	G-6
Q1202	G-5
Q1203	G-5
Q1204	G-5

DIODE	
D500	H-12
D502	H-13
D503	I-14
D504	H-11
D505	H-13
D506	I-14
D507	H-13

DIODE	
D600	A-7
D601	C-6
D603	C-7
D604	D-7
D605	C-6
D606	C-6
D607	C-7
D608	F-9
D609	F-9
D610	F-7
D611	F-6
D612	E-7
D613	F-8
D614	F-8
D615	H-7
D616	G-7
D617	F-9
D618	F-11
D619	E-6
D620	E-6
D622	E-6
D625	G-9
D626	G-6
D631	F-6
D800	F-12
D801	G-12
D802	G-12
D803	F-13
D807	E-12
D808	E-14
D809	A-14
D810	A-13
D812	B-11
D815	E-14
D817	H-11
D901	C-1
D902	I-5
D903	H-4
D904	H-5
D905	I-5
D906	I-5
D1201	G-6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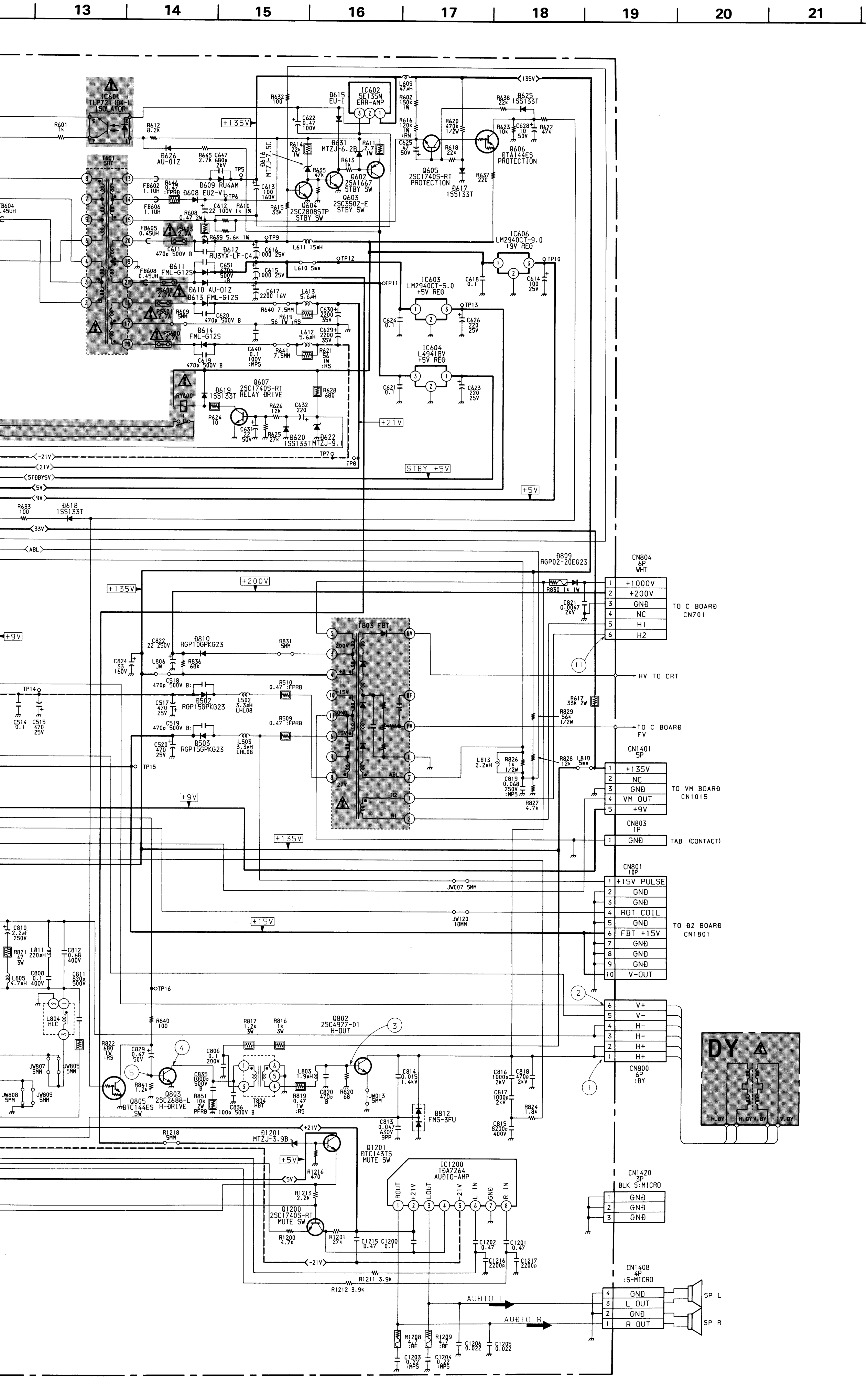
O
B-:SSBE3Ð<...>-Ð..-29X1
CN603 4P
AC-IN 240-250V AC
AC-IN
NC
NC
AC-IN
F601 5.0A 250V
S601 POWER
LF600 LFT
LF601 LFT
C683 0.22 300V
C684 0.22 300V
C600 2200p 250V
C635 0.22 300V
R630 8.2M 1W
R631 8.2M 10W
R642 3.3M 10W
C602 4700p 250V
C601 4700p 250V
D600 D4SB60L-F
R629 1M 1/2W
C636 2200p 250V
JW142 15MM
TO DGC
DGC
NC
DGC
CN601 3P
DGC CHK
DGC CHK
CN600 2P
THP600
R600 39k 3W
D601 EM1-V1
C603 330 400V
R647 0.1 1/2W :RF
Q601 2SC3852A 7V REG
R634 22
R603 10k 2W
C604 100 50V
D603 MTZJ-6.8B
C605 10 100V
FB600 1.1UH
IC600 STR-S6708 POWER-CONTROL
GND
FB601 1.1UH
R606 JW 12.5MM
C607 220 25V
R627 0.68 1W
C608 1500p 2kV E
D607 EG-1Z
R607 12 1W :RS
R605 0.27 2W :RS
FB607 1.1UH
D
HV OUT
PIN OUT
POWER SUPPLY
CONTROL SW. AUDIO IN
Y-CHROMA IN
HEADPHONE IN
SIRCS RECEIVE. INDICATOR
CN902 50P
GND
GND
GND
GND
ROT COIL
V-OUT
NC
GND
E/W
V+OUT
H DRIVE
V-SYNC
HFBP
GND
EHT
ABL
PROT
DGC RELAY
GND
9V
33V
STBY 5V
AFC
SIRCS
SPKRL
STBY
GND
5V
SPKRR
GND
STBY LED
GND
GND
GND
GND
KEY 1
VM OUT
MUTE
H/P R
GND
H/P L
GND
RIN
LIN
VIN
GND
CIN
YIN
TO A BOARD CN001
12
13
-21V
EHT
R833 220k
R522 22k
R523 22k
D504 1SS133T
D505 MTZJ-3.6A
R524 4.7k
Q501 2SC1740S-RT SW
C522 10 50V
D506 1SS133T
D507 MTZJ-5.1B
R525 4.7k
Q502 2SA933S-RT SW
C521 10 25V
Q503 DTC144ES SW
C523 0.1
R526 2.2k
IC500 STV9379 VERTICAL OUTPUT
V+I/P
VCC
F.B.-PLS
VEE
OUT-PUT
VCC (OUT)
V-I/P
7
6
C510 220 50V
C507 2.2 50V
C511 0.33 63V
R505 1 :FPRD
D803 GP08D
R507 220 2W
C513 0.1 100V :MPS
C503 0.1 :MPS
R521 27k 1W
R527 4.7k 1W
+SAW
TP18
R500 33k 1W
R504 27k 1W
R506 5.6k 1W
C504 470p
C506 470 25V
C509 0.1
R508 1.5 2W :RS
L616 47μH
+9V
JW898 5MM
8
AUDIO L
L615 22μH
+5V
AUDIO R
6
HDRIVE
ROT COIL
R812 2.2k
R852 18k
FB800 0.
C838 470p 500V
D807 RGP10GPK
R818 22 2W
R842 4.7k
R809 100k
C830 0.47 50V
R843 120k
C802 0.01
E/W
R803 3.9k
R805 10k
C801 0.022
R847 470k
R846 180k
C832 1 50V
R848 22k
D808 GP08D
R837 6.8k
D802 1SS133T
HFBP
R800 2.2k
JW009 5MM
R802 22k
R849 10k
C800 0.0047
R813 470 1W
R814 330
C804 0.1
8
Q801 2SC4793 PIN OUT
D817 MTZJ-5.6B
+9V
D801 1SS133T
L809 47μH
9
R811 5MM (JW)
Q800 2SC1740S-RT PIN-OUT
CN807 3P S:MICRO
RIGHT
CENTRE
H.CEN
C1207 100 16V
D800 1SS133T
C834 22 25V
10
R850 4.7k
Q1204 DTC143TS MUTE SW
C831 JW
IC800 LM393P PIN-CORRECTION
JW819
JW820
R1204 2.2k
C1214 100 16V
IC1201 TDA2822M HEADPHONE AMP
C1209 4.7 50V
R1206 8.2k
R1205 8.2k
C1218 220 16V
R1202 4.7 :FPRD
R1217 4.7k
R1203 2.2k
C1208 4.7 50V
D1202 JW
Q1202 DTC114ES MUTE SW
Q1203 DTC143TS MUTE SW
R835 22 3W
5
4
3
2
C906 10 50V
C910 JW
R907 75
C908 10 50V
D902 MTZJ-9.1
D903 MTZJ-9.1
D904 MTZJ-9.1
D905 MTZJ-9.1
D906 MTZJ-9.1
R902 39 1/2W
R901 39 1/2W
R922 100
R909 10k
STBY +5V
JW306 30MM
AUDIO L
AUDIO R
C907 10 50V
L904 10μH
C911 10 50V
L903 10μH
C901 100p 500V
R919 47k
R921 47k
C913 100p 500V
R905 75
R906 75
Y/C-3
C902 0.022
C903 0.022
L902 10μH
L901 10μH
J900 HEADPHONES
TP20
R900 220
IC900 SBX1790-51 RECEIVER
R904 4.7
R923 390
Q900 2SC1740S-RT
D901 SLA-570KT3F
R908 47
C905 10 50V
C904 100 25V
R910 2.7k
R911 5.6k
R912 10k
R913 22k
R914 47k
S902
S901
S900
CN900
R
L
V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IC601 TLP721 (D4-) ISOLATOR
T601 SRT
IC602 SE135N ERR-AMP
D615 EU-1
D616 MTZJ-7.5C
D631 MTZJ-6.2B
Q602 2SA1667 STBY SW
Q603 2SC3502-E STBY SW
Q604 2SC2808STP STBY SW
Q605 2SC1740S-RT PROTECTION
Q606 DTA144ES PROTECTION
D617 1SS133T
D625 1SS133T
D626 AU-01Z
D608 EU2-V1
D609 RU4AM
D612 RU3YX-LF-C4
D611 FML-G12S
D610 AU-01Z
D613 FML-G12S
D614 FML-G12S
PS603 2.7A
PS602 2.7A
PS601 2.7A
PS600 2.7A
IC606 LM2940CT-9.0 +9V REG
IC603 LM2940CT-5.0 +5V REG
IC604 L4941BV +5V REG
Q607 2SC1740S-RT RELAY DRIVE
D619 1SS133T
RY600
D620 1SS133T
D622 MTZJ-9.1
+135V
+21V
STBY +5V
+5V
-21V
21V
STBYSV
5V
9V
33V
ABL
D618 1SS133T
D809 RGP02-20EG23
CN804 6P WHT
+1000V
+200V
GND
NC
H1
H2
TO C BOARD CN701
+200V
+135V
+9V
D810 RGP10GPKG23
T803 FBT
HV TO CRT
TO C BOARD FV
D502 RGP15GPKG23
D503 RGP15GPKG23
CN1401 5P
+135V
NC
GND
VM OUT
+9V
TO VM BOARD CN1015
CN803 1P
GND
TAB (CONTACT)
CN801 10P
+15V PULSE
GND
GND
ROT COIL
GND
FBT +15V
GND
GND
GND
V-OUT
TO D2 BOARD CN1801
+15V
JW007 5MM
JW120 10MM
CN800 6P :DY
V+
V-
H-
H-
H+
H+
DY
H.DY
H.DY
V.DY
V.DY
Q802 2SC4927-01 H-OUT
Q803 2SC2688-L H-DRIVE
Q805 DTC144ES SW
T804 HDT
L804 HLC
D812 FMS-3FU
D1201 MTZJ-3.9B
Q1201 DTC143TS MUTE SW
Q1200 2SC1740S-RT MUTE SW
IC1200 TDA7264 AUDIO-AMP
ROUT
-21V
LOUT
-21V
L IN
GND
R IN
CN1420 3P BLK S:MICRO
GND
GND
GND
CN1408 4P :S-MICRO
GND
L OUT
GND
R OUT
AUDIO L
AUDIO R
SP L
SP R
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
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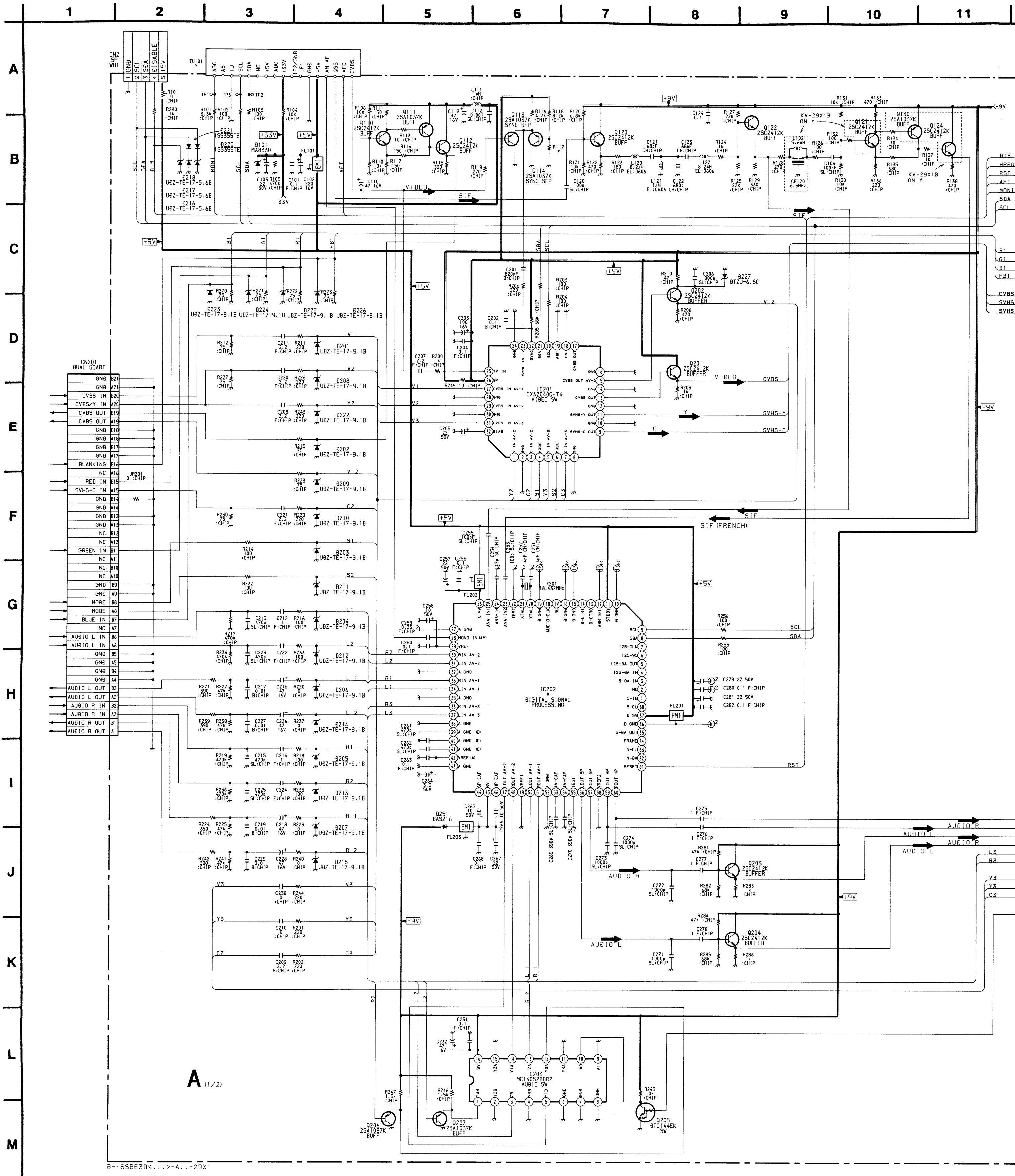
D BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q501	-0.1	0.2	-
Q502	0.1	-5.8	-
Q503	-5.8	-12.0	-12.0
Q602	72.0	7.5	72.7
Q603	0	72.0	-
Q604	0.7	-	-
Q605	0.5	-	0.3
Q606	-	-	12.0
Q607	-	12.0	-
Q800	0.2	3.1	-
Q801	0.3	17.0	-
Q802	-0.2	143.3	-
Q803	-0.6	99.8	-
Q805	-	3.6	-
Q900	-	5.4	-
Q1200	2.9	21.5	4.6
Q1201	3.4	5.0	3.0
Q1202	2.8	-	-

D BOARD IC VOLTAGE TABLE

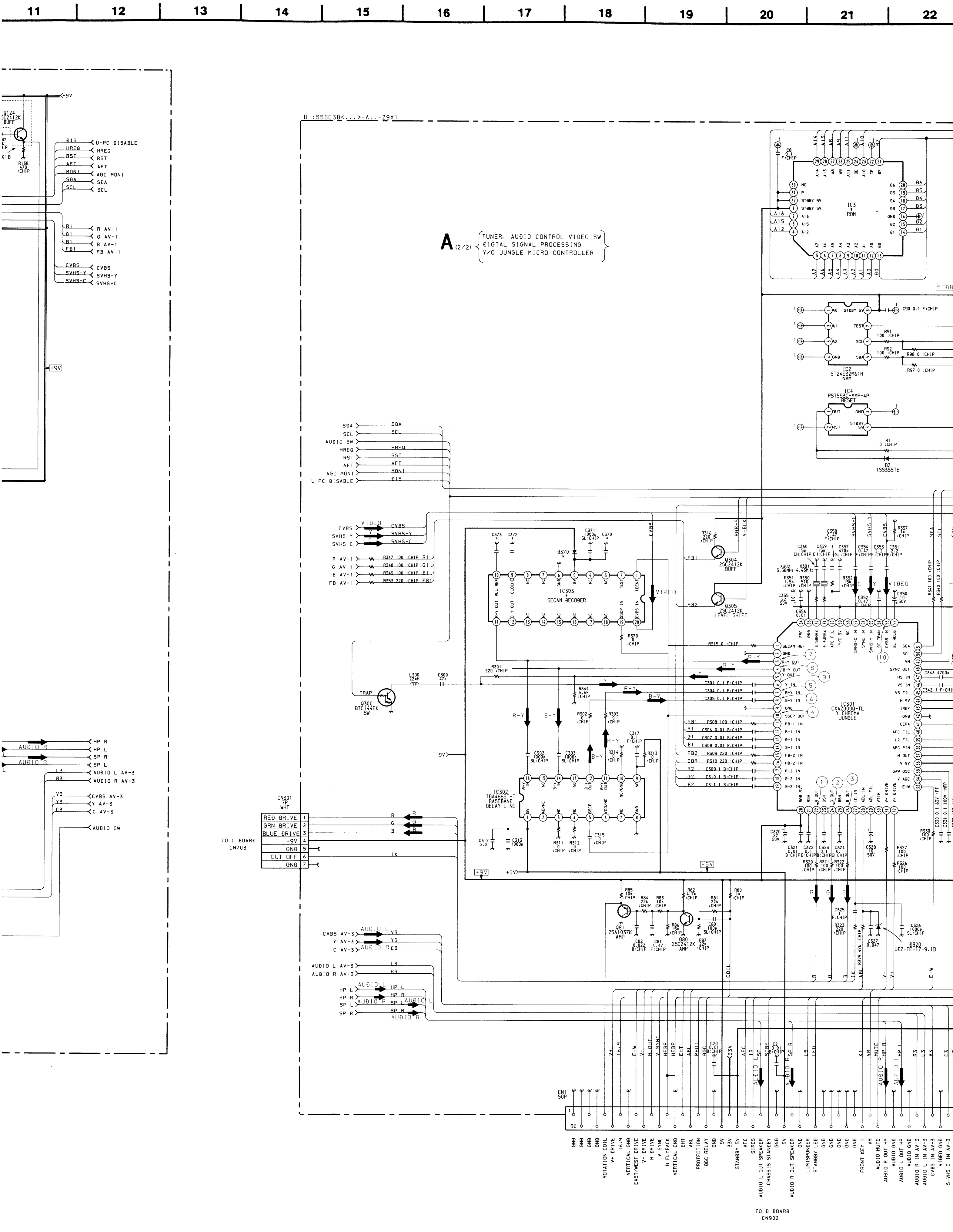
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC500	1	1.5
	2	15.0
	3	-12.3
	4	-14.0
	5	0.1
	6	15.2
	7	1.4
IC600	1	170.0
	2	-62.4
	3	-62.6
	4	-62.2
	5	-62.0
	6	-62.6
	7	-62.4
	8	-62.0
	9	-58.0
IC601	1	64.3
	2	63.0
	3	-62.5
	4	-58.6
IC602	1	135.0
	2	63.2
	3	-0.1
IC800	3	0.9
	5	1.5
	6	2.0
	7	0.2
	8	9.0
IC1200	2	21.7
	4	21.5
	5	-21.7
IC1201	1	4.0
	2	9.0
	3	4.0
	5	0.5
	8	0.5



A (1/2)
TU101
CN2 5P WHT
CN201 DUAL SCART
IC201 CXA2040Q-T4 VIDEO SW
IC202 DIGITAL SIGNAL PROCESSING
IC203 MC14052BDR2 AUDIO SW
X201 18.432MHz
Q110 2SC2412K BUFF
Q111 2SA1037K BUFF
Q112 2SC2412K BUFF
Q113 2SA1037K SYNC SEP
Q114 2SA1037K SYNC SEP
Q120 2SC2412K BUFF
Q121 2SC2412K BUFF
Q122 2SC2412K BUFF
Q124 2SC2412K BUFF
Q130 2SA1037K BUFF
KV-29X1B ONLY
Q201 2SC2412K BUFFER
Q202 2SC2412K BUFFER
Q203 2SC2412K BUFFER
Q204 2SC2412K BUFFER
Q205 DTC144EK SW
Q206 2SA1037K BUFF
Q207 2SA1037K BUFF
CF120 6.5MHz
SIF
SIF (FRENCH)
VIDEO
AUDIO L
AUDIO R
CVBS
SVHS-Y
SVHS-C
+5V
+9V
+33V
B-:SSBE30<...>-A..-29X1

A BOARD * MARK

Model / Ref. No.	29X1A	29X1B	29X1D	29X1E	29X1K	29X1L	29X1R	29X1U
C370	—	2.2UF	2.2UF	2.2UF	2.2UF	—	2.2UF	—
C372	—	0.1UF	0.1UF	0.1UF	0.1UF	—	0.1UF	—
C373	—	0.22UF	0.22UF	0.22UF	0.22UF	—	0.22UF	—
D370	—	BAS216	BAS216	BAS216	BAS216	—	BAS216	—
IC3	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBW101	TMS27PC010A-15FMBE101	TMS27PC010A-15FMBW101	TMS27PC010A-15FML	TMS27PC010A-15FMBW101
IC202	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3410-15	MSP3400C-PS	MSP3410-15
IC303	—	TDA8395T	TDA8395T	TDA8395T	TDA8395T	—	TDA8395T	—
R13	150	—	150	150	150	150	150	150
R14	150	—	150	150	150	150	150	150
R15	150	—	150	150	150	150	150	150
R16	100	—	100	100	100	100	100	100
R17	100	—	100	100	100	100	100	100
R117	1.8K	1.8K	1.8K	1.8K	1.8K	1.8K	1.8K	2.0K
TU101	TUVIF (AEP)	TUVIF (FR)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (UK)



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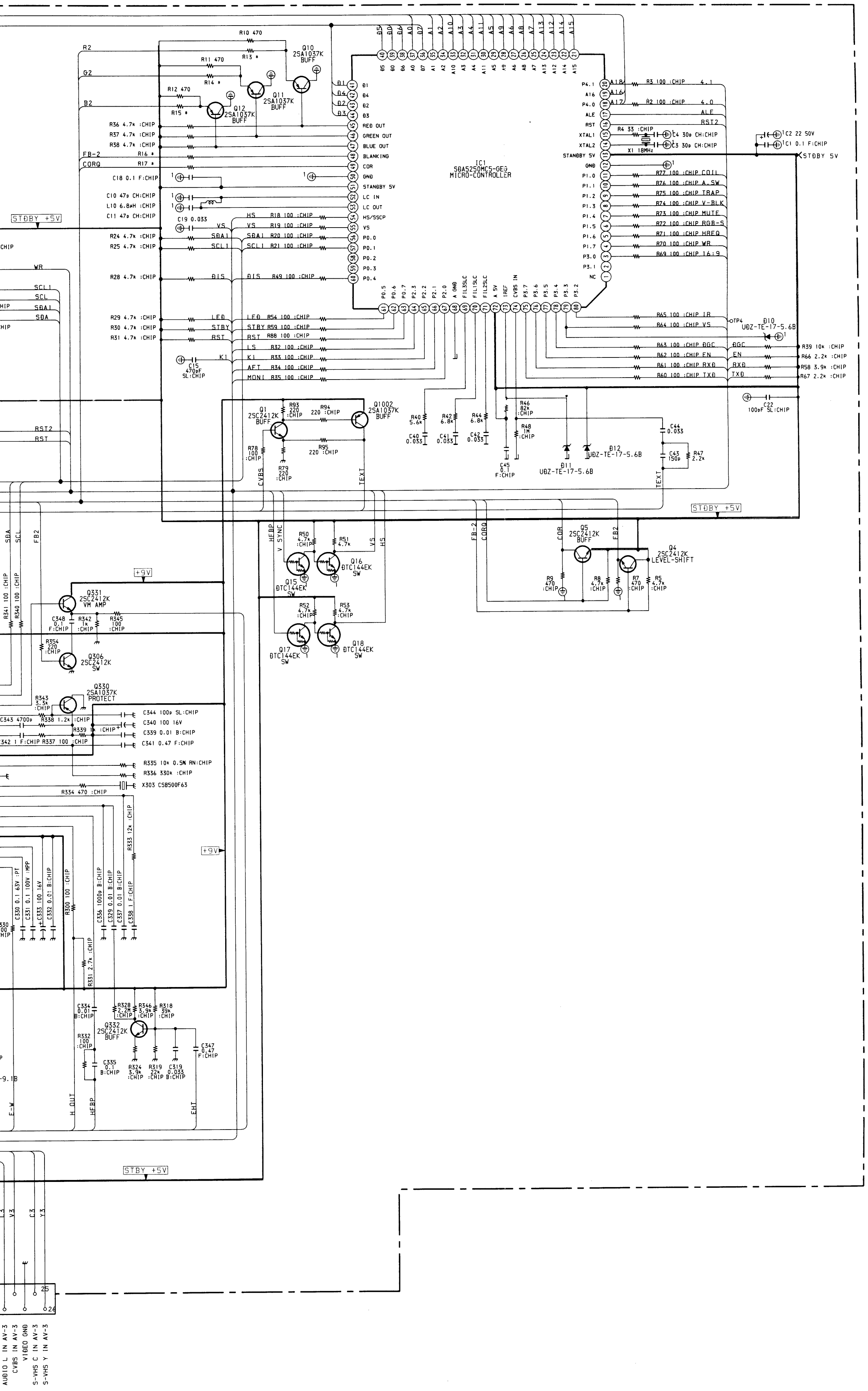
B-:SSBE30<...>-A..-29X1
A (2/2)
TUNER, AUDIO CONTROL VIDEO SW,
DIGITAL SIGNAL PROCESSING
Y/C JUNGLE MICRO CONTROLLER
Q124 2SC2412K BUFF
R138 470 :CHIP
+9V
DIS U-PC DISABLE
HREQ
RST
AFT
MONI AGC MONI
SDA
SCL
R1 R AV-1
G1 G AV-1
B1 B AV-1
FB1 FB AV-1
CVBS
SVHS-Y
SVHS-C
HP R
HP L
SP R
SP L
L3 AUDIO L AV-3
R3 AUDIO R AV-3
Y3 CVBS AV-3
Y3 Y AV-3
C3 C AV-3
AUDIO SW
IC3 ROM
C8 0.1 F:CHIP
STDBY 5V
IC2 ST24E32M6TR NVM
C90 0.1 F:CHIP
R91 100 :CHIP
R92 100 :CHIP
R98 0 :CHIP
R97 0 :CHIP
IC4 PST593C-MMP-4P RESET
R1 0 :CHIP
D2 1SS355TE
IC303 SECAM DECODER
D370
C373
C372
C371 1000p SL:CHIP
C370
R347 100 :CHIP
R348 100 :CHIP
R349 100 :CHIP
R353 220 :CHIP
R370 0 :CHIP
Q300 DTC144EK SW
TRAP
L300 22μH
C300 47p
R301 220 :CHIP
R344 5.6k :CHIP
R302 0 :CHIP
R303 0 :CHIP
C317 0.1 F:CHIP
R314 0 :CHIP
R313 0 :CHIP
C302 1000p SL:CHIP
C303 1000p SL:CHIP
IC302 TDA4665T-T BASEBAND DELAY-LINE
C312 2.2
C313 1000p
R311 0 :CHIP
R312 0 :CHIP
C315 :CHIP
CN301 7P WHT
TO C BOARD CN703
RED DRIVE 1
GRN DRIVE 2
BLUE DRIVE 3
+9V 4
GND 5
CUT OFF 6
GND 7
IK
9V
+5V
R316 220 :CHIP
Q304 2SC2412K BUFF
Q305 2SC2412K LEVEL SHIFT
RGB-S
V-BLK
FB1
FB2
IC301 CXA2000Q-TL Y CHROMA JUNGLE
X302 3.58MHz
X301 4.43MHz
R315 0 :CHIP
C301 0.1 F:CHIP
C304 0.1 F:CHIP
C305 0.1 F:CHIP
R308 100 :CHIP
C306 0.01 B:CHIP
C307 0.01 B:CHIP
C308 0.01 B:CHIP
R309 220 :CHIP
R310 220 :CHIP
C309 1 B:CHIP
C310 1 B:CHIP
C311 1 B:CHIP
R341 100 :CHIP
R340 100 :CHIP
C343 4700p
C342 1 F:CHIP
C350 10 50V
R357 1k :CHIP
C330 0.1 63V
C331 0.1 100V
R330 100 :CHIP
R327 100 :CHIP
R326 100 :CHIP
C328 10 50V
C320 22 50V
C325 1 F:CHIP
R323 220 :CHIP
R329 47k
C327 0.047
C326 1000p SL:CHIP
D320 UDZ-TE-17-9.1B
R85 10k :CHIP
Q81 2SA1037K AMP
R84 22k :CHIP
R83 10k :CHIP
C82 0.022 B:CHIP
C81 0.47 F:CHIP
R82 4.7k :CHIP
R86 15k :CHIP
Q80 2SC2412K AMP
R87 22k :CHIP
R81 22k :CHIP
C80 100p SL:CHIP
R80 1k :CHIP
COIL
CN1 50P
C20 0.01 B:CHIP
C21 0.01 B:CHIP
GND
GND
GND
GND
ROTATION COIL
V+ DRIVE
16:9
VERTICAL GND
EAST/WEST DRIVE
V- DRIVE
H DRIVE
V SYNC
H FLYBACK
VERTICAL EHT
ABL
PROTECTION
DGC RELAY
GND
9V
33V
STANDBY 5V
AFC
SIRCS
AUDIO L OUT SPEAKER
CHASSIS STANDBY
GND
5V
AUDIO R OUT SPEAKER
GND
LUMISPONDER
STANDBY LED
GND
GND
GND
GND
FRONT KEY 1
VM
AUDIO MUTE
AUDIO R OUT HP
AUDIO GND
AUDIO L OUT HP
AUDIO GND
AUDIO R IN AV-3
AUDIO L IN AV-3
CVBS IN AV-3
VIDEO GND
S-VHS-C IN AV-3
TO D BOARD CN902


IC1
SDA5250MC5-GEG
MICRO-CONTROLLER
Q10 2SA1037K BUFF
Q11 2SA1037K BUFF
Q12 2SA1037K BUFF
Q1 2SC2412K BUFF
Q1002 2SA1037K BUFF
Q5 2SC2412K BUFF
Q4 2SC2412K LEVEL-SHIFT
Q15 DTC144EK SW
Q16 DTC144EK SW
Q17 DTC144EK SW
Q18 DTC144EK SW
Q331 2SC2412K VM AMP
Q306 2SC2412K SW
Q330 2SA1037K PROTECT
Q332 2SC2412K BUFF
D10 UDZ-TE-17-5.6B
D11 UDZ-TE-17-5.6B
D12 UDZ-TE-17-5.6B
X1 18MHz
X303 CSB500F63
STBY +5V
STBY 5V
+9V
RED OUT
GREEN OUT
BLUE OUT
BLANKING
COR
GND
STANDBY 5V
LC IN
LC OUT
HS/SSCP
VS
XTAL1
XTAL2
ALE
RST
NC
R2
G2
B2
FB-2
CORQ
HS
VS
SDA
SCL
SDA1
SCL1
DIS
LED
STBY
RST
LS
KI
AFT
MONI
WR
RST2
CVBS
TEXT
HEBP
V SYNC
R3 100 :CHIP
R2 100 :CHIP
R77 100 :CHIP COIL
R76 100 :CHIP A.SW
R75 100 :CHIP TRAP
R74 100 :CHIP V-BLK
R73 100 :CHIP MUTE
R72 100 :CHIP RGB-S
R71 100 :CHIP HREQ
R70 100 :CHIP WR
R69 100 :CHIP 16:9
R65 100 :CHIP IR
R64 100 :CHIP VS
R63 100 :CHIP DGC
R62 100 :CHIP EN
R61 100 :CHIP RXD
R60 100 :CHIP TXD
R39 10k :CHIP
R66 2.2k :CHIP
R58 3.9k :CHIP
R67 2.2k :CHIP
C2 22 50V
C1 0.1 F:CHIP
C4 30p CH:CHIP
C3 30p CH:CHIP
C22 100pF SL:CHIP
H OUT
HEBP
EHT
F-W
AUDIO L IN AV-3
CVBS IN AV-3
VIDEO GND
S-VHS C IN AV-3
S-VHS Y IN AV-3

A (1/2) BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC201	13	4.4
	15	4.4
	20	3.5
	21	2.7
	22	4.9
	23	4.4
	24	0
	25	4.4
	26	8.8
	32	4.4
IC202	4	2.8
	6-7	0.1
	8	3.0
	9	3.6
	11	4.7
	13	4.7
	20-21	2.4
	23	0.2
	25	1.5
	26	4.8
	28	3.8
	29	2.6
	39-42	3.8
	44	7.1
	45	8.0
	46	7.1
	47-48	3.8
	53-54	3.8

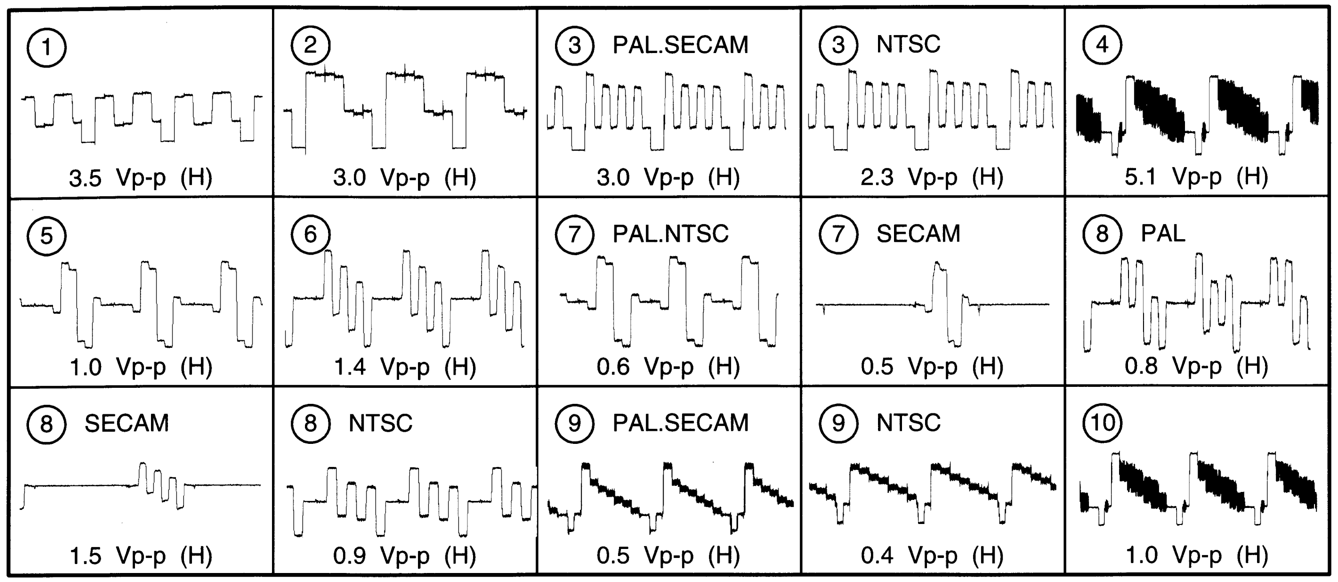
A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q1	3.7	4.8	3.1
Q4	0.1	4.8	-
Q5	0.7	4.8	4.0
Q15	-	4.3	-
Q16	4.3	0.2	-
Q17	0.4	3.5	-
Q18	3.5	0.7	-
Q80	2.6	2.2	-
Q81	2.4	-	3.0
Q304	-	4.8	-
Q305	-	4.8	-
Q330	4.5	-	5.1
Q331	6.3	8.8	5.7
Q332	3.1	8.8	2.5
Q1001	4.4	-	-

A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q110	1.8	8.2	1.2
Q112	1.5	8.8	0.8
Q113	1.8	-	-
Q114	5.4	6.0	-
Q120	84.3	8.8	3.7
Q121	1.5	5.4	0.9
Q122	5.4	8.8	4.7
Q124	-	8.8	-
Q201	4.4	8.8	3.7
Q202	4.4	8.8	3.7

WAVEFORMS A BOARD



A (2/2) BOARD IC VOLTAGE TABLE

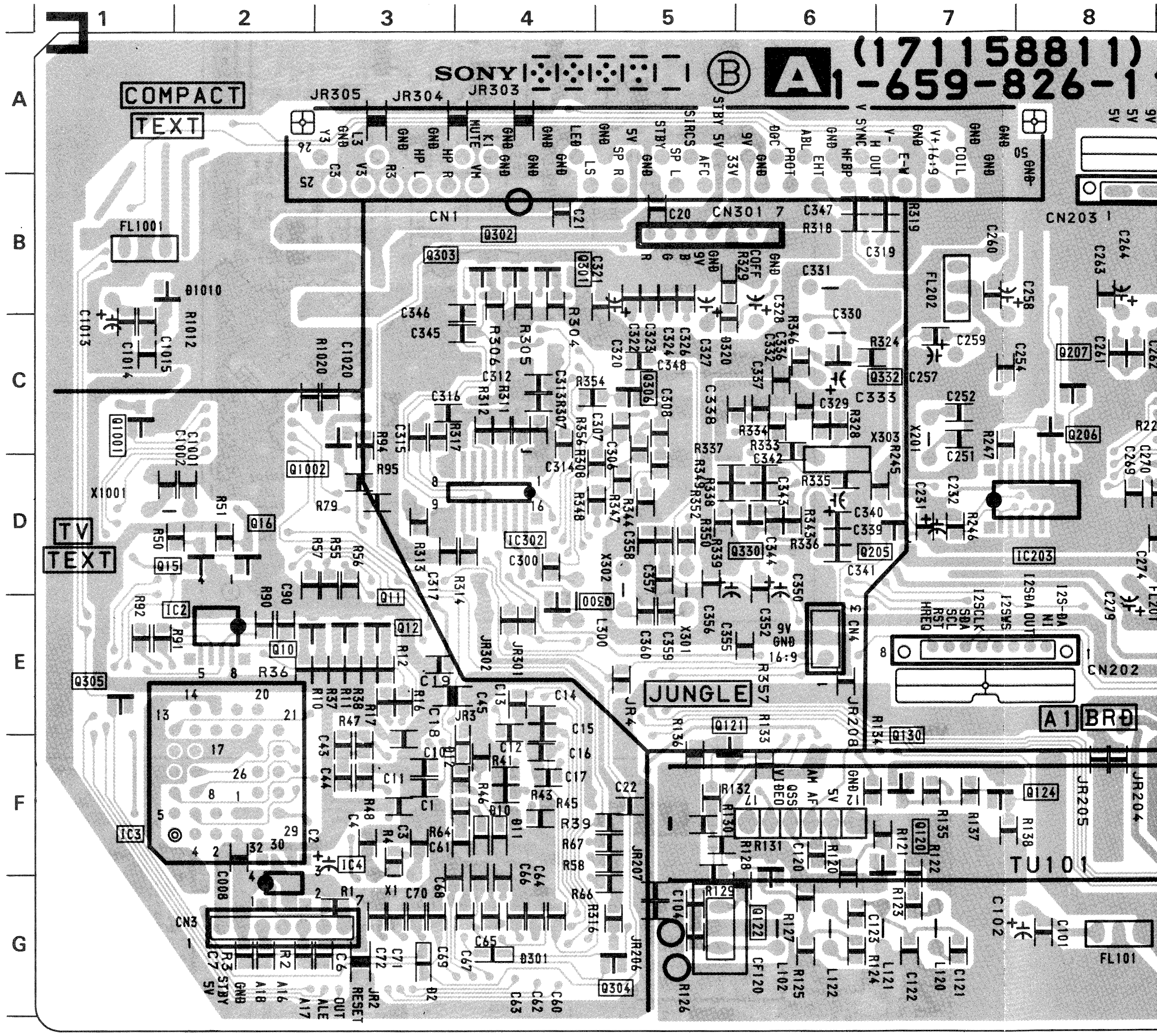
IC Voltage Table

Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC1	2	3.6	IC301	5	3.6	IC301	61	5.0
	3-4	4.8		6	5.0		62	7.6
	5	0.5		7-8	5.4	IC302	1	4.8
	7	4.8		10	0.6		5	0.7
	9	4.8		12-14	5.4		9	4.8
	11	2.4		16	4.0		11-12	3.0
	13	4.8		17-19	5.4		14	1.3
	14-15	2.3		20	8.8		16	1.3
	16-17	4.8		22-23	2.2	IC303	5	8.0
	48	4.0		24	2.0		3.2	10
	51	4.8		25	2.4		11	5.6
	52-53	2.4		26	2.0		0	19
	54	0.7		27	4.0		20	3.7
	55	0.2		28	6.6		4	0.2
	56-57	4.8		29	8.8		5	0.7
	58	2.8		31-33	3.0	IC1001	4	0.2
	59	3.5		34	4.0		5	0.7
	60	2.4		35	4.6		6	1.7
	62	0.7		36	8.8		7	1.8
	63	4.4		37	3.1		10	0.4
	65	4.8		38	3.4		11-12	4.8
	66	2.1		39	5.3		16	4.8
	67	2.0		40	4.2		17	0
	69-71	2.3		41	2.3		21	4.8
	72	4.8		43	1.7		23	3.0
	73	1.5		44	8.8		25	4.8
	74	1.2		45	2.5		56	0
	75-77	4.8		46	3.9		61	1.3
	79	0.2		47	3.0		62-63	1.4
	80	4.8		48	4.4		64	0
IC2	5-8	4.8		49	6.3		66	4.6
IC3	1	4.8		50-51	0.1		67	4.7
	31-32	4.8		53	3.9		68	4.0
IC4	1	4.8		54	5.0			
	3	4.8		55-56	4.2			
IC301	1	1.5		58-59	8.8			
	3-4	5.6		60	5.3			

A

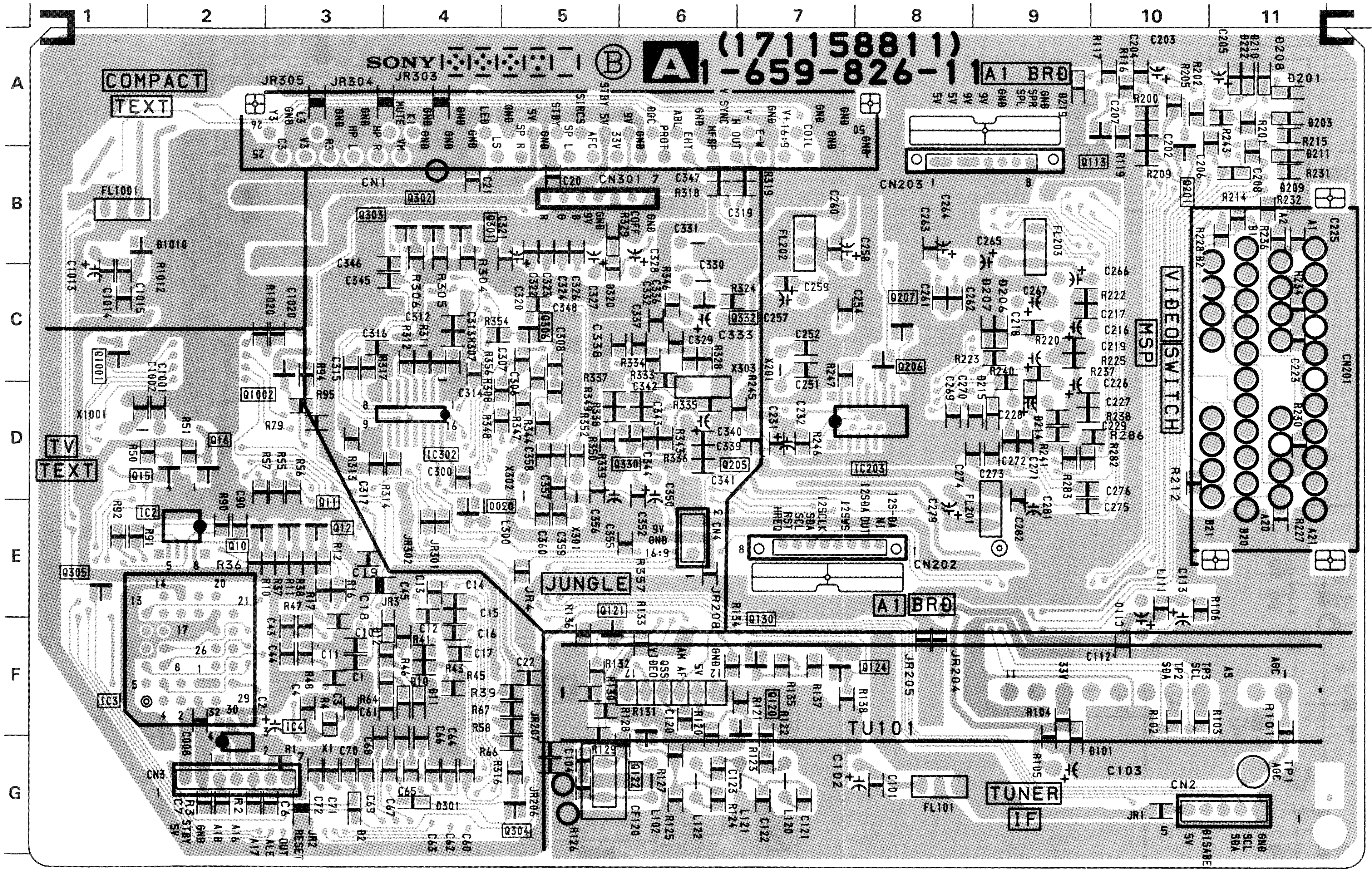
TUNER, AUDIO CONTROL VIDEO SW, DIGITAL SIGNAL PROCESSING
Y/C JUNGLE MICRO CONTROLLER

A Board <Conductor Side>

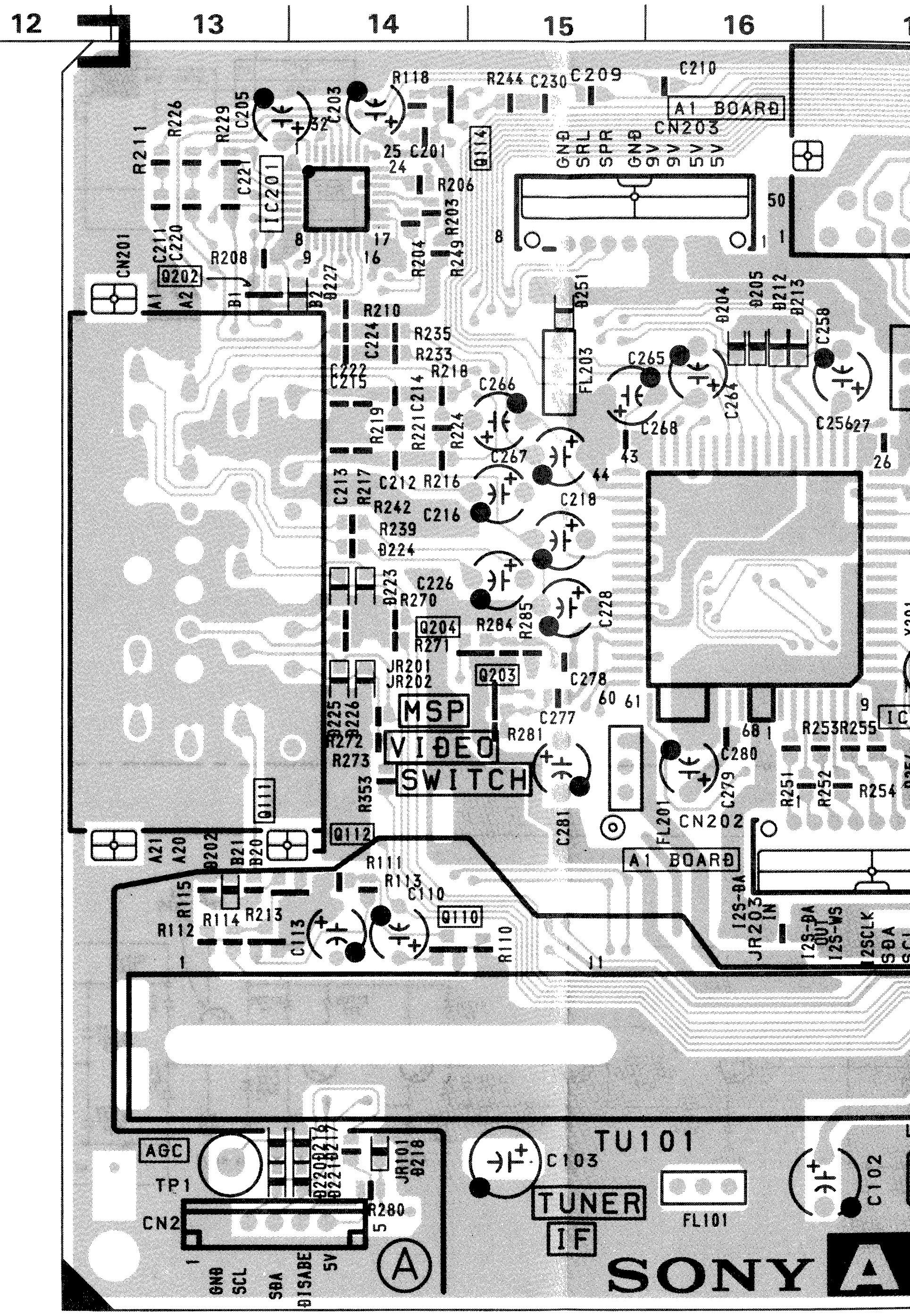

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
SONY
A
(1711588 1 1)
1-659-826-1
COMPACT
TEXT
TV
TEXT
JUNGLE
A1 BRD
TU101
JR305
JR304
JR303
CN1
CN301
CN203
CN202
CN3
CN4
FL1001
FL101
FL202
IC1
IC2
IC3
IC4
IC203
IC302
X1001
X201
X303
X301
X1
B1010
B301
Q1001
Q1002
Q15
Q16
Q10
Q11
Q12
Q302
Q303
Q305
Q306
Q330
Q332
Q205
Q206
Q207
Q121
Q130
Q124
Q120
Q122
Q304
L300
L102
L120
L121
L122
R36
R47
R79
R95
R135
R136
R137
R138
C101
C102
C120
C300

A [TUNER, AUDIO CONTROL VIDEO SW, DIGITAL SIGNAL PROCESSING
Y/C JUNGLE MICRO CONTROLLER]

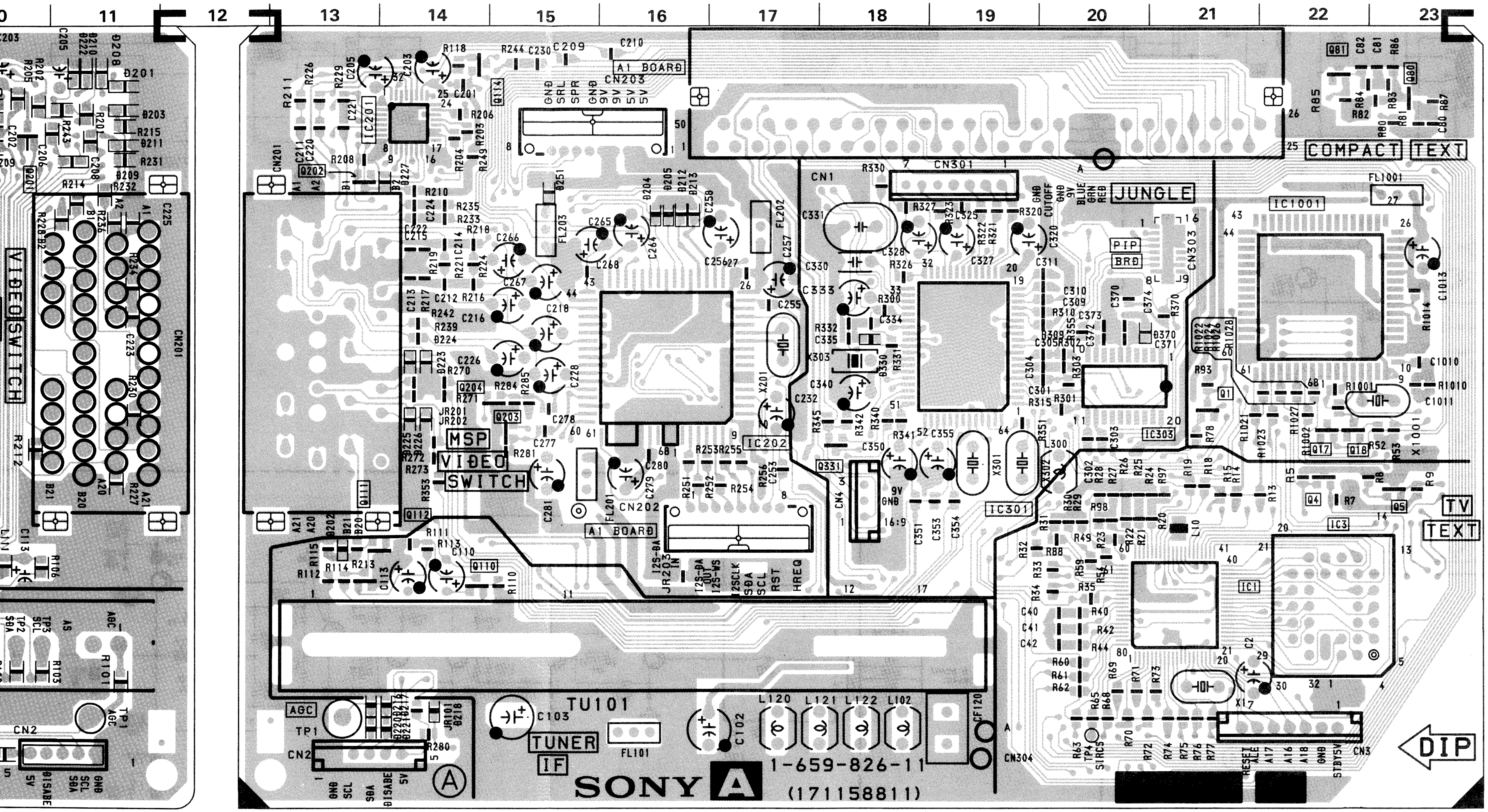
A Board <Conductor Side>


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
SONY
A
(1711588 1 1)
1-659-826-1 1
A1 BRD
COMPACT TEXT
TV TEXT
JR305
JR304
JR303
CN1
CN301
CN203
CN202
CN201
CN2
CN3
CN4
IC2
IC3
IC4
IC203
IC302
X1001
FL1001
FL201
FL202
FL203
VIDEO SWITCH
MSP
JUNGLE
A1 BRD
TU101
TUNER IF
TP1 AGC

A Board <Component Side>

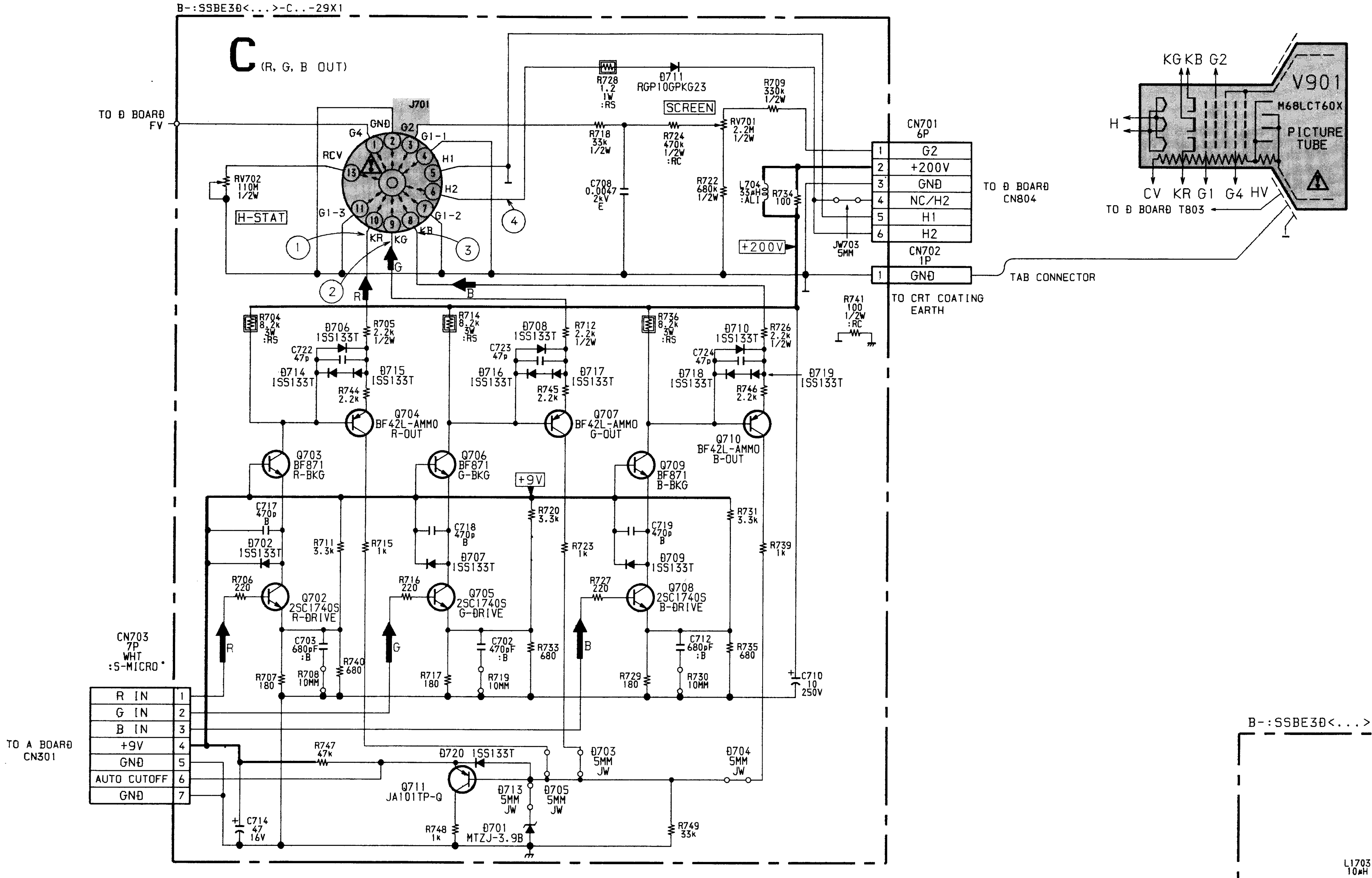

12
13
14
15
16
A1 BOARD
CN203
CN201
CN202
CN2
IC201
MSP
VIDEO
SWITCH
TU101
TUNER IF
FL101
FL201
FL203
AGC
TP1
SONY
A

A Board <Component Side>

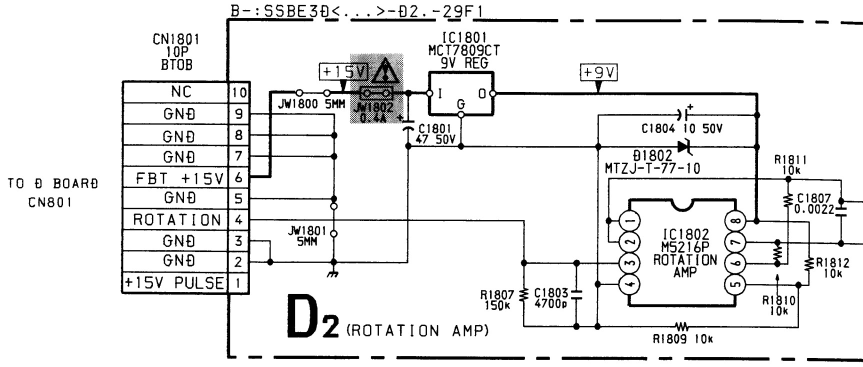

11
12
13
14
15
16
17
18
19
20
21
22
23
VIDEO SWITCH
MSP
VIDEO SWITCH
IC201
IC202
IC203
IC301
IC303
IC1001
IC1
IC3
CN201
CN202
CN203
CN301
CN303
CN304
CN2
CN3
CN4
A1 BOARD
COMPACT TEXT
JUNGLE
PIP
BRD
TV TEXT
DIP
TU101
TUNER
IF
FL101
L120
L121
L122
L102
AGC
TP1
SONY A
1-659-826-11
(171158811)

A BOARD

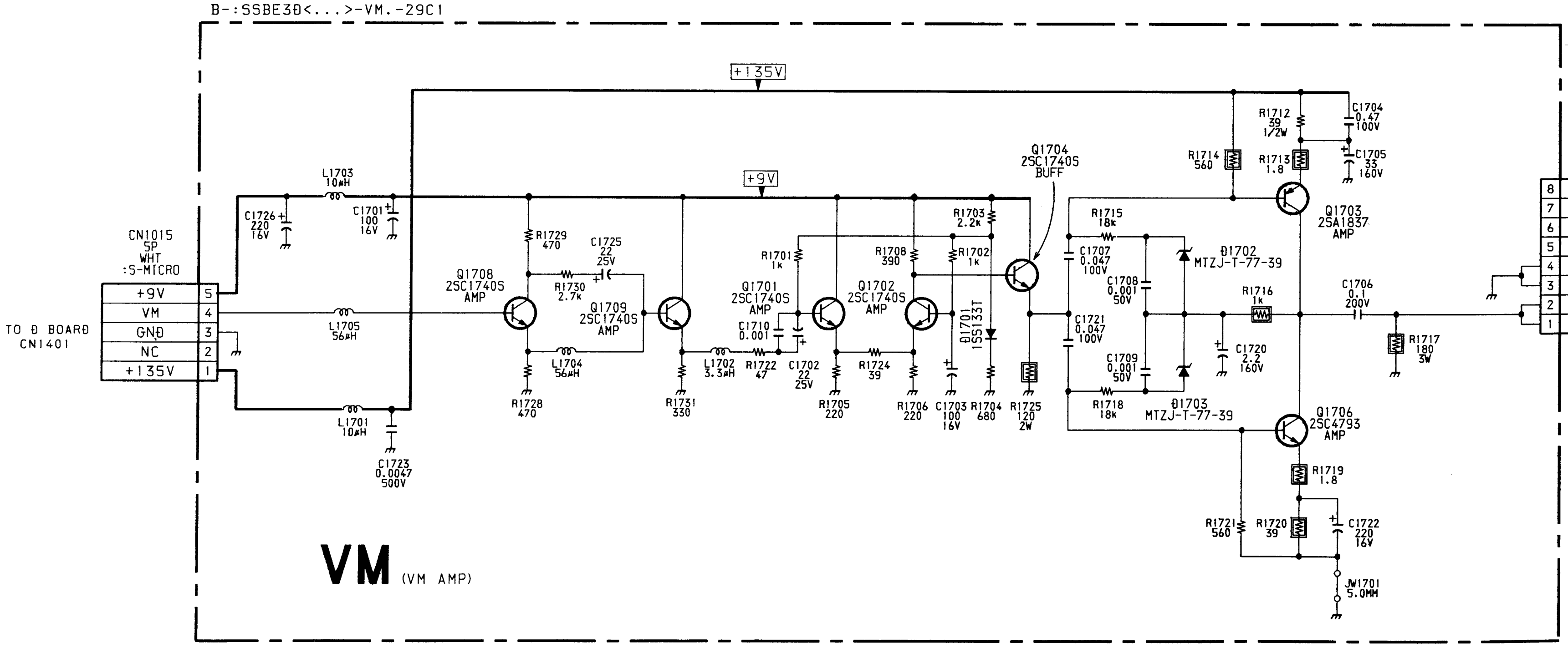
IC	
IC1	F-21
IC2	E-2
IC3	F-2
IC4	G-2
IC201	A-14
IC202	C-16
IC203	D-8
IC301	C-19
IC302	D-4
IC303	D-21
TRANSISTOR	
Q1	D-21
Q4	E-22
Q5	E-23
Q10	E-2
Q11	E-3
Q15	D-2
Q16	D-2
Q17	D-22
Q18	D-23
Q80	A-23
Q81	A-22
Q110	F-14
Q111	E-14
Q112	E-14
Q113	A-10
Q114	A-14
Q120	F-7
Q121	F-5
Q122	F-6
Q124	F-7
Q130	F-7
Q201	B-10
Q202	B-13
Q203	D-15
Q204	D-15
Q205	D-7
Q206	C-8
Q207	C-8
Q300	E-4
Q304	G-5
Q305	E-1
Q306	C-5
Q330	D-6
Q331	D-18
Q332	C-6
Q1002	C-3
DIODE	
D2	G-3
D10	F-10
D11	F-10
D12	F-4
D101	F-9
D201	A-11
D202	E-13
D203	A-11
D204	B-16
D205	B-16
D206	C-9
D207	C-9
D208	A-11
D209	B-11
D210	A-11
D211	B-11
D212	B-16
D213	B-16
D214	D-9
D215	D-9
D216	G-14
D217	G-14
D218	G-14
D220	G-14
D221	D-14
D222	D-14
D223	D-14
D224	D-14
D225	D-14
D226	D-14
D227	B14
D251	B-15
D320	C-5
D370	C-21



B-:SSBE3D<...>-C..-29X1
C (R, G, B OUT)
TO D BOARD FV
J701
RV702 110M 1/2W
H-STAT
RCV
G4
GND
G2
G1-1
G1-2
G1-3
H1
H2
KR
KG
KB
D711 RGP10GPKG23
R728 1.2 1W :RS
R718 33k 1/2W
SCREEN
R724 470k 1/2W :RC
R709 330k 1/2W
RV701 2.2M 1/2W
C708 0.0047 2kV E
R722 680k 1/2W
L704 33μH :AL
R734 100
+200V
JW703 5MM
CN701 6P
1 G2
2 +200V
3 GND
4 NC/H2
5 H1
6 H2
CN702 1P
1 GND
TO D BOARD CN804
TAB CONNECTOR
TO CRT COATING EARTH
R741 100 1/2W :RC
V901 M68LCT60X PICTURE TUBE
KG KB G2
H
CV KR G1 G4 HV
TO D BOARD T803
R704 8.2k 3W :RS
D706 1SS133T
R705 2.2k 1/2W
C722 47p
D714 1SS133T
D715 1SS133T
R744 2.2k
Q704 BF42L-AMMO R-OUT
R714 8.2k 3W :RS
D708 1SS133T
R712 2.2k 1/2W
C723 47p
D716 1SS133T
D717 1SS133T
R745 2.2k
Q707 BF42L-AMMO G-OUT
R736 8.2k 3W :RS
D710 1SS133T
R726 2.2k 1/2W
C724 47p
D718 1SS133T
D719 1SS133T
R746 2.2k
Q710 BF42L-AMMO B-OUT
Q703 BF871 R-BKG
Q706 BF871 G-BKG
Q709 BF871 B-BKG
+9V
C717 470p B
D702 1SS133T
R711 3.3k
R715 1k
C718 470p B
D707 1SS133T
R720 3.3k
R723 1k
C719 470p B
D709 1SS133T
R731 3.3k
R739 1k
R706 220
Q702 2SC1740S R-DRIVE
R716 220
Q705 2SC1740S G-DRIVE
R727 220
Q708 2SC1740S B-DRIVE
C703 680pF :B
R740 680
C702 470pF :B
R733 680
C712 680pF :B
R735 680
R707 180
R708 10MM
R717 180
R719 10MM
R729 180
R730 10MM
C710 10 250V
CN703 7P WHT :S-MICRO
1 R IN
2 G IN
3 B IN
4 +9V
5 GND
6 AUTO CUTOFF
7 GND
TO A BOARD CN301
R747 47k
D720 1SS133T
D703 5MM JW
D704 5MM JW
Q711 JA101TP-Q
D713 5MM JW
D705 5MM JW
C714 47 16V
R748 1k
D701 MTZJ-3.9B
R749 33k
R
G
B



B-:SSBE3D<...>-D2.-29F1
CN1801 10P BTOB
10 NC
9 GND
8 GND
7 GND
6 FBT +15V
5 GND
4 ROTATION
3 GND
2 GND
1 +15V PULSE
TO D BOARD CN801
+15V
JW1800 5MM
JW1802 0.4A
IC1801 MCT7809CT 9V REG
+9V
C1801 47 50V
C1804 10 50V
D1802 MTZJ-T-77-10
R1811 10k
C1807 0.0022
IC1802 M5216P ROTATION AMP
R1812 10k
JW1801 5MM
R1807 150k
C1803 4700p
R1810 10k
R1809 10k
D2 (ROTATION AMP)



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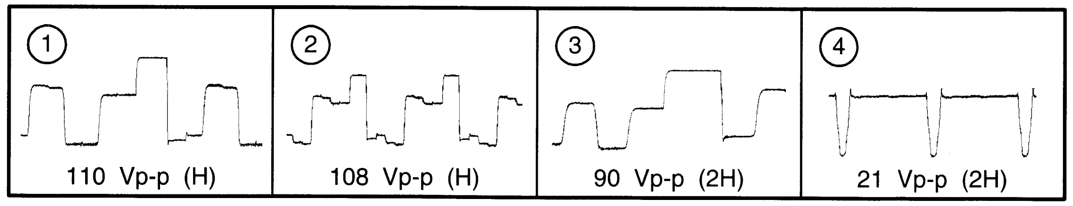
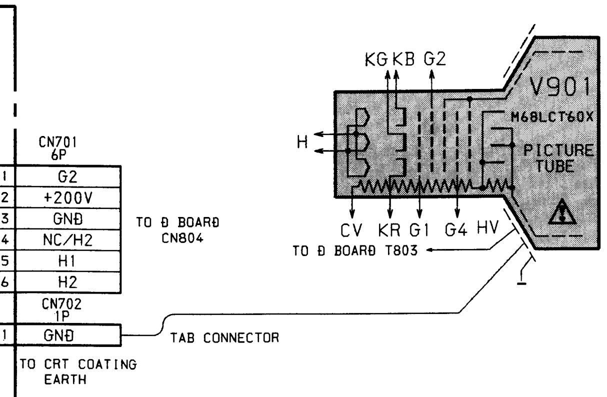
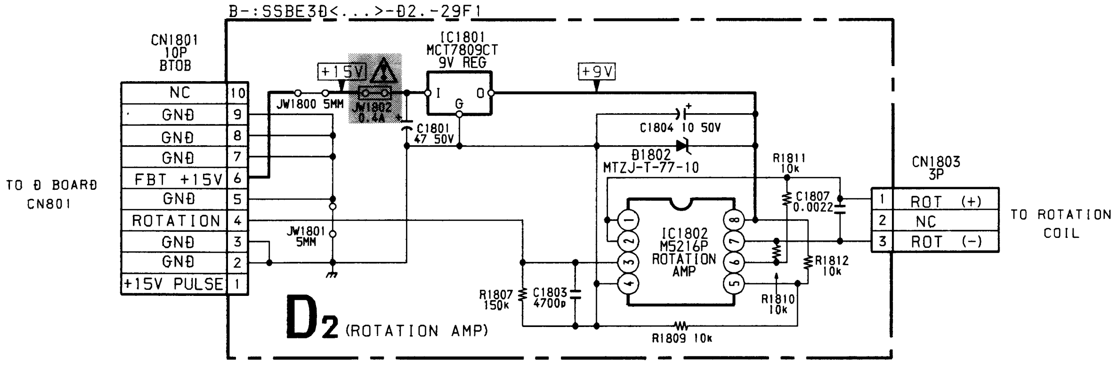
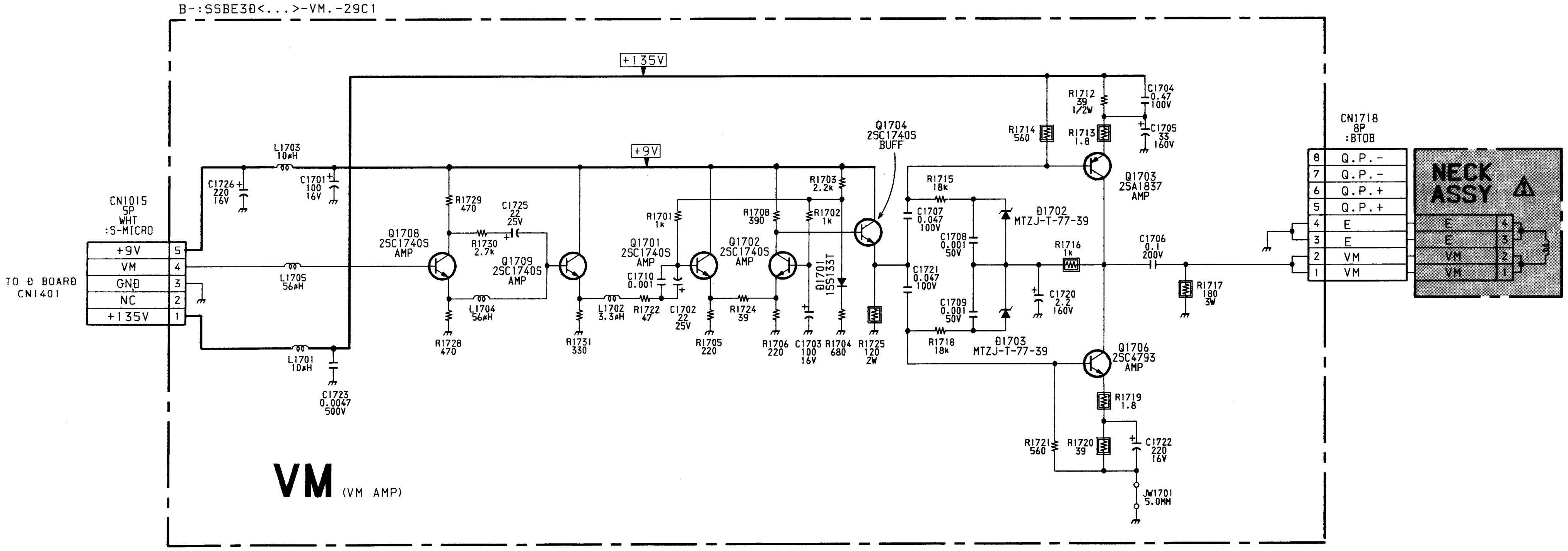
+135V
+9V
CN1015 5P WHT :S-MICRO
5 +9V
4 VM
3 GND
2 NC
1 +135V
TO D BOARD CN1401
L1703 10μH
C1726 220 16V
C1701 100 16V
L1705 56μH
L1701 10μH
C1723 0.0047 500V
Q1708 2SC1740S AMP
R1729 470
C1725 22 25V
R1730 2.7k
Q1709 2SC1740S AMP
L1704 56μH
R1728 470
R1731 330
Q1701 2SC1740S AMP
R1701 1k
C1710 0.001
L1702 3.3μH
R1722 47
C1702 22 25V
R1708 390
Q1702 2SC1740S AMP
R1703 2.2k
R1702 1k
R1705 220
R1724 39
D1701 1SS133T
R1706 220
C1703 100 16V
R1704 680
R1725 120 2W
Q1704 2SC1740S BUFF
R1715 18k
C1707 0.047 100V
C1708 0.001 50V
C1721 0.047 100V
C1709 0.001 50V
R1718 18k
D1702 MTZJ-T-77-39
D1703 MTZJ-T-77-39
R1716 1k
C1720 2.2 160V
R1712 39 1/2W
R1714 560
R1713 1.8
C1704 0.47 100V
C1705 33 160V
Q1703 2SA1837 AMP
C1706 0.1 200V
R1717 180 3W
Q1706 2SC4793 AMP
R1719 1.8
R1721 560
R1720 39
C1722 220 16V
JW1701 5.0MM
VM (VM AMP)

WAVEFORMS C BOARD




CN701
6P
1 G2
2 +200V
3 GND
4 NC/H2
5 H1
6 H2
CN702
1P
1 GND
TO D BOARD CN804
TO D BOARD T803
TAB CONNECTOR
TO CRT COATING EARTH
KG KB G2
H
CV KR G1 G4 HV
V901
M68LCT60X
PICTURE TUBE


B-:SSBE3D<...>-D2.-29F1
CN1801
10P
BTOB
10 NC
9 GND
8 GND
7 GND
6 FBT +15V
5 GND
4 ROTATION
3 GND
2 GND
1 +15V PULSE
TO D BOARD CN801
+15V
JW1800 5MM
JW1802 0.4A
IC1801
MCT7809CT
9V REG
+9V
C1801 47 50V
C1804 10 50V
D1802 MTZJ-T-77-10
R1811 10k
C1807 0.0022
IC1802 M5216P ROTATION AMP
R1812 10k
R1810 10k
R1809 10k
R1807 150k
C1803 4700p
JW1801 5MM
CN1803
3P
1 ROT (+)
2 NC
3 ROT (-)
TO ROTATION COIL
D2 (ROTATION AMP)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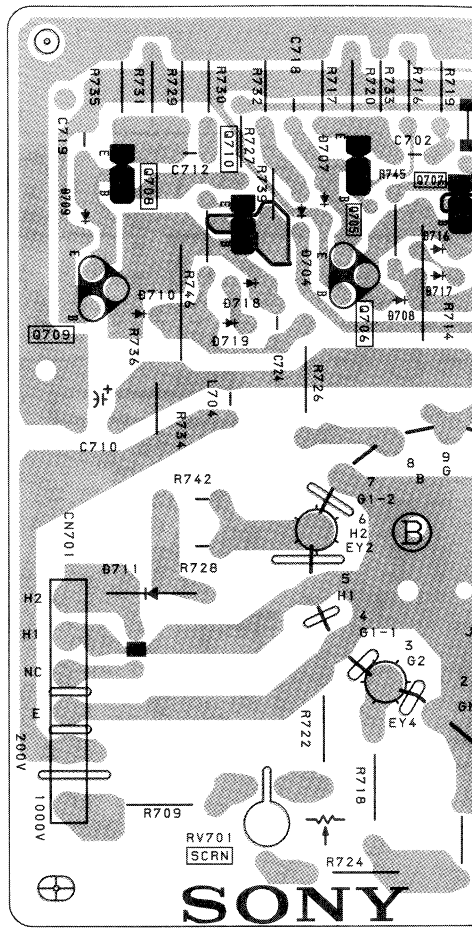
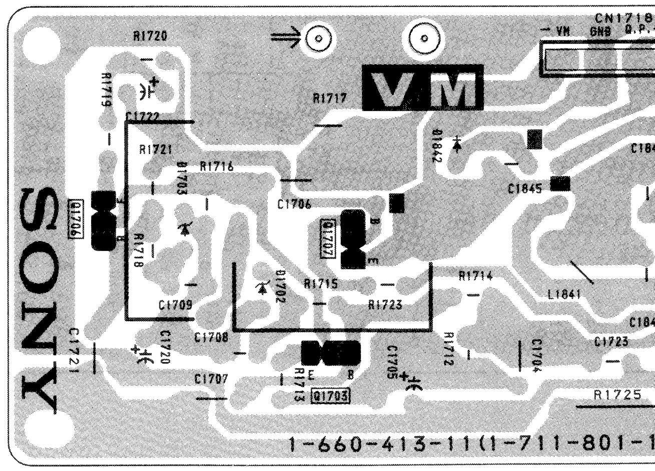
+135V
+9V
CN1015
5P
WHT
:S-MICRO
5 +9V
4 VM
3 GND
2 NC
1 +135V
TO D BOARD CN1401
C1726 220 16V
L1703 10μH
C1701 100 16V
L1705 56μH
L1701 10μH
C1723 0.0047 500V
Q1708 2SC1740S AMP
R1729 470
C1725 22 25V
R1730 2.7k
Q1709 2SC1740S AMP
L1704 56μH
R1728 470
R1731 330
L1702 3.3μH
R1722 47
C1702 22 25V
R1701 1k
Q1701 2SC1740S AMP
C1710 0.001
R1705 220
R1708 390
Q1702 2SC1740S AMP
R1724 39
R1703 2.2k
R1702 1k
D1701 1SS133T
R1706 220
C1703 100 16V
R1704 680
R1725 120 2W
Q1704 2SC1740S BUFF
R1715 18k
C1707 0.047 100V
C1708 0.001 50V
C1721 0.047 100V
C1709 0.001 50V
R1718 18k
D1702 MTZJ-T-77-39
D1703 MTZJ-T-77-39
R1716 1k
C1720 2.2 160V
R1714 560
R1712 39 1/2W
R1713 1.8
C1704 0.47 100V
C1705 33 160V
Q1703 2SA1837 AMP
C1706 0.1 200V
R1717 180 3W
Q1706 2SC4793 AMP
R1719 1.8
R1721 560
R1720 39
C1722 220 16V
JW1701 5.0MM
CN1718
8P
:BTOB
8 Q.P.-
7 Q.P.-
6 Q.P.+
5 Q.P.+
4 E
3 E
2 VM
1 VM
NECK ASSY
E 4
E 3
VM 2
VM 1
VM (VM AMP)

C [R, G, B OUT] **VM** [V

C Board

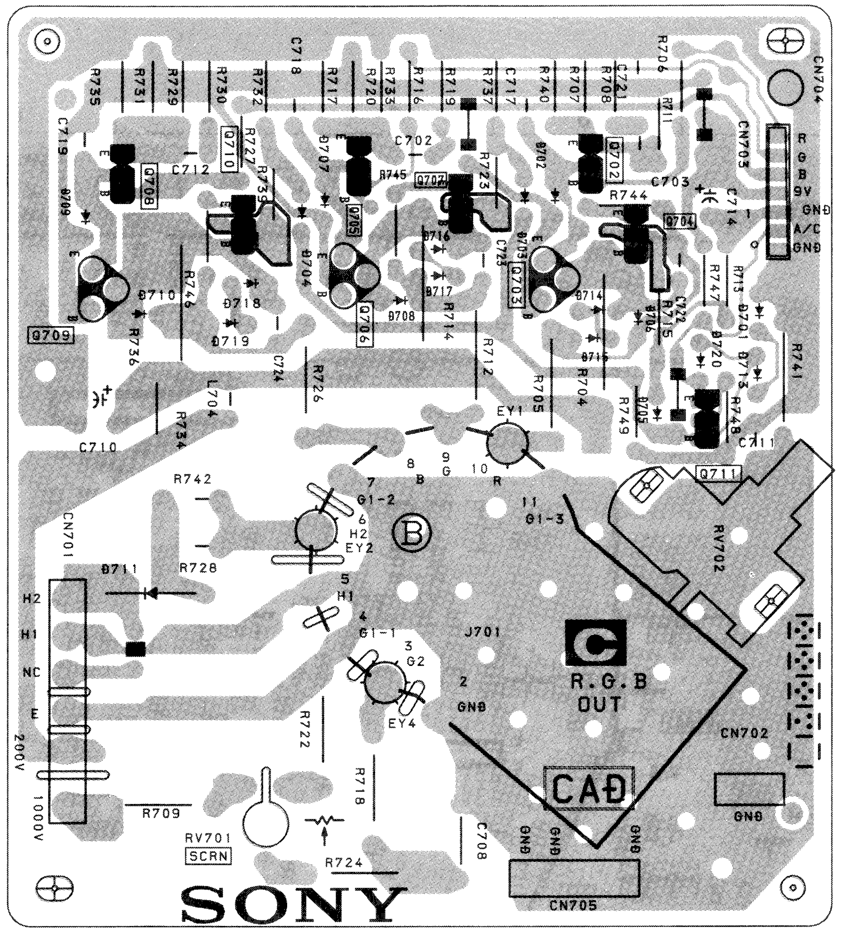

C718
R735
R731
R729
R730
R732
R717
R720
R733
R716
R719
C719
Q710
C712
Q708
Q709
D710
D718
D719
Q706
Q705
C702
C710
R742
R728
D711
CN701
H2
H1
NC
200V
1000V
R709
RV701
SCRN
R724
R722
R718
SONY

VM Board


R1720
R1719
R1717
VM
CN1718
R1721
R1716
C1706
C1722
R1718
Q1706
Q1707
R1715
R1723
R1714
C1709
C1708
C1707
C1720
C1721
R1713
Q1703
C1705
R1712
C1704
C1723
R1725
SONY
1-660-413-11(1-711-801-1

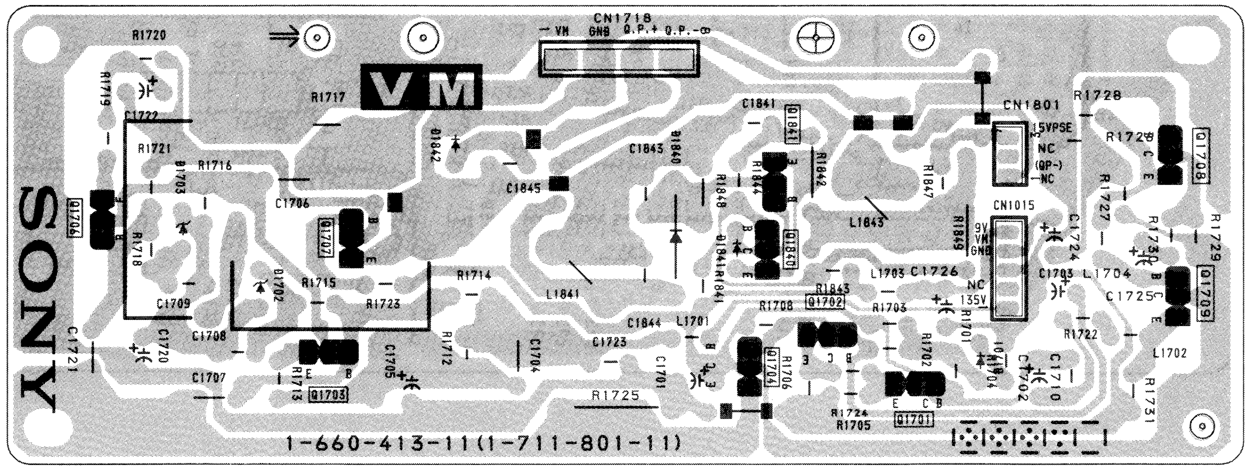
C [R, G, B OUT] **VM** [VM AMP]

C Board



C
R.G.B
OUT
CAD
CN701
CN702
CN704
CN705
J701
RV701
SCRN
RV702
SONY

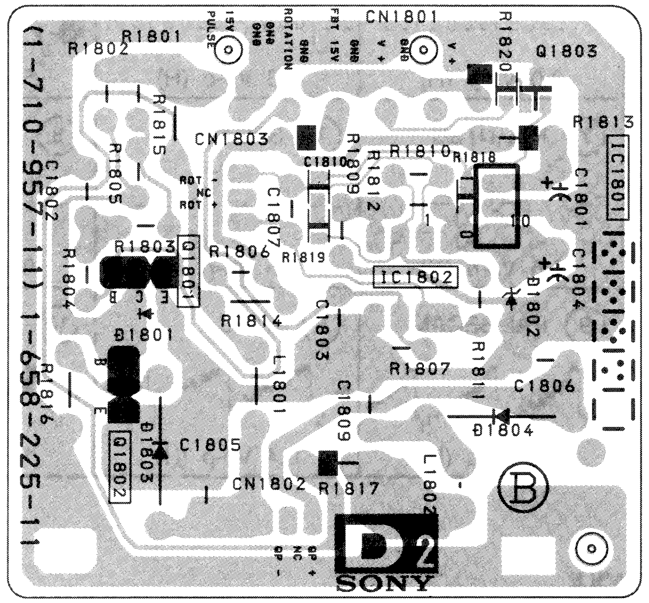
VM Board



VM
CN1718
CN1801
CN1015
SONY
1-660-413-11(1-711-801-11)

D2 [ROTATION AMP]

D2 Board



CN1801
CN1802
CN1803
IC1801
IC1802
(1-710-957-11)1-658-225-11
D2
SONY

C BOARD
TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q702	2.0	11.4	1.4
Q703	12.0	168.3	11.4
Q704	168.3	6.0	163.5
Q705	1.7	11.4	1.2
Q706	12.0	178.8	11.4
Q707	178.2	6.2	173.8
Q708	2.0	11.4	1.4
Q709	12.0	168.3	11.4
Q710	168.0	6.4	160.0

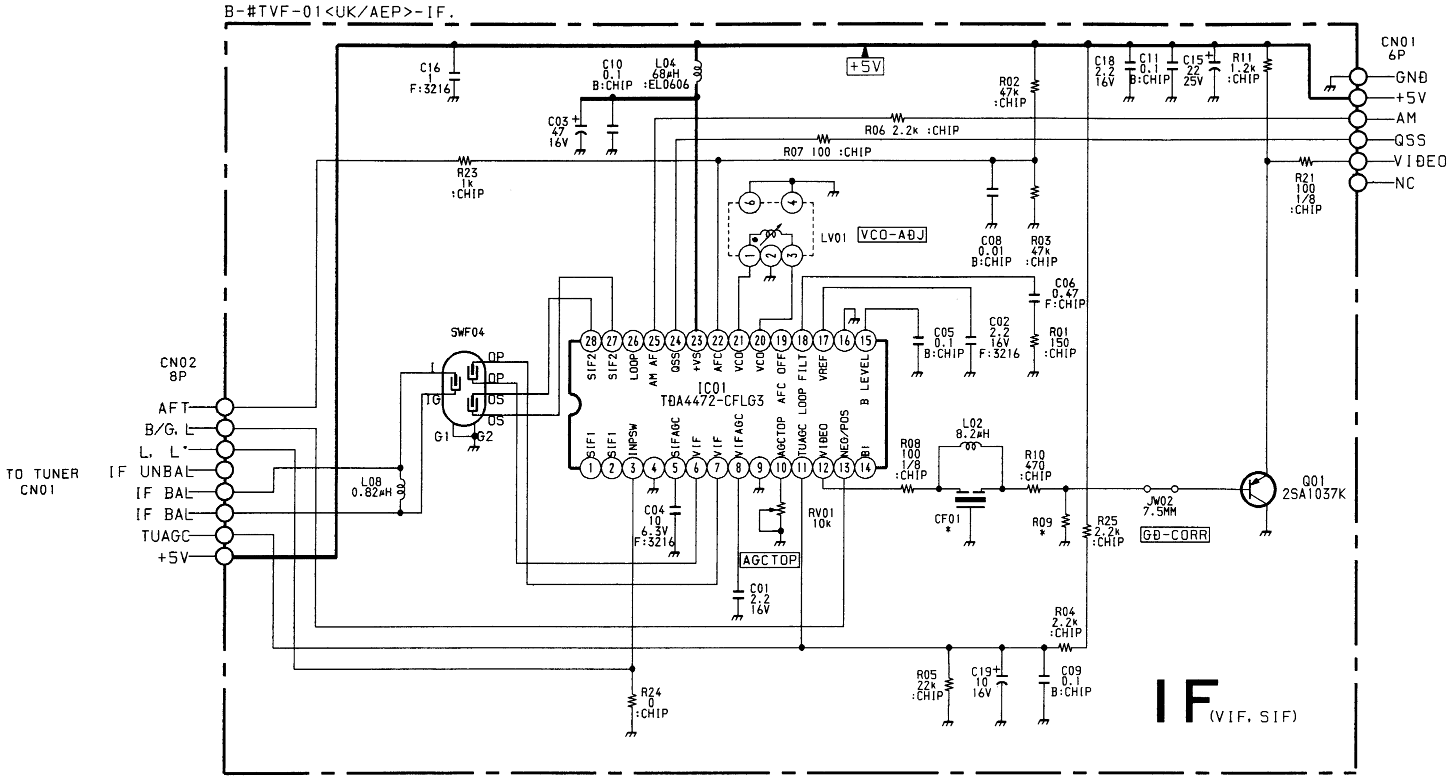
VM BOARD
TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q1701	2.5	8.8	1.8
Q1702	2.5	5.5	1.8
Q1703	134.3	71.8	134.8
Q1704	5.5	8.8	4.8
Q1706	1.0	71.8	0.4
Q1707	0.7	-	-
Q1708	2.9	6.6	2.2
Q1709	2.2	8.8	1.5
Q1840	0.6	-	-

D2 BOARD IC VOLTAGE TABLE

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC1802	1-2	2.8
	3	3.0
	5-6	4.4
	7	6.2
	8	9.0

TUVIF (AEP) (KV-29X1A, 29X1D, 29X1E, 29X1K, 29X1L and 29X1R ONLY)
TUVIF (UK) (KV-29X1U ONLY)

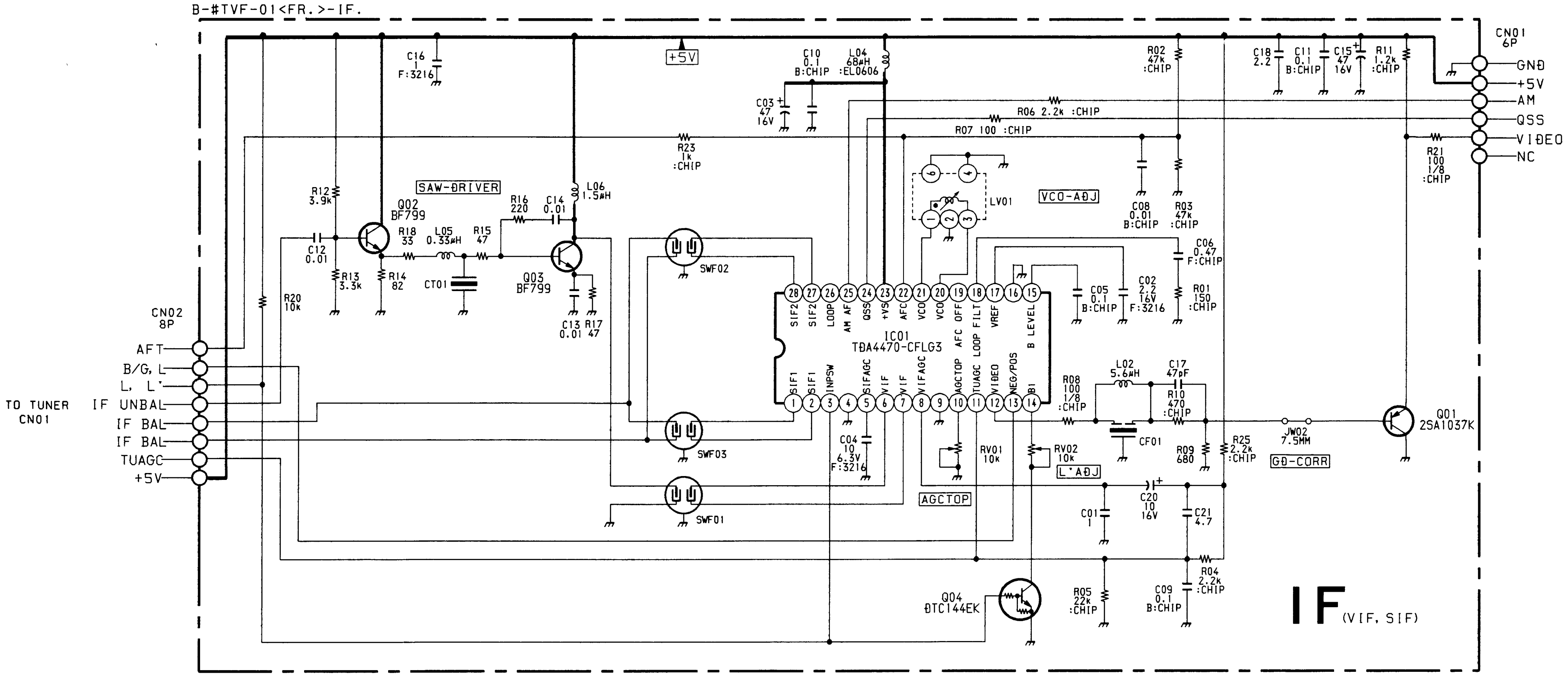


B-#TVF-01<UK/AEP>-IF.
TO TUNER CN01
CN02 8P
AFT
B/G, L
L, L'
IF UNBAL
IF BAL
IF BAL
TUAGC
+5V
CN01 6P
GND
+5V
AM
QSS
VIDEO
NC
+5V
SWF04
L08 0.82μH
IC01 TDA4472-CFLG3
LV01 VCO-ADJ
AGCTOP
RV01 10k
CF01
L02 8.2μH
Q01 2SA1037K
JW02 7.5MM
GD-CORR
R06 2.2k :CHIP
R07 100 :CHIP
R23 1k :CHIP
R24 0 :CHIP
R21 100 1/8 :CHIP
L04 68μH :EL0606
IF (VIF, SIF)

IF Board

Model / Ref. No.	29X1A	29X1D	29X1E	29X1K	29X1L	29X1R	29X1U
CF01	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz
R09	680MF	680MF	680MF	680MF	680MF	680MF	1K

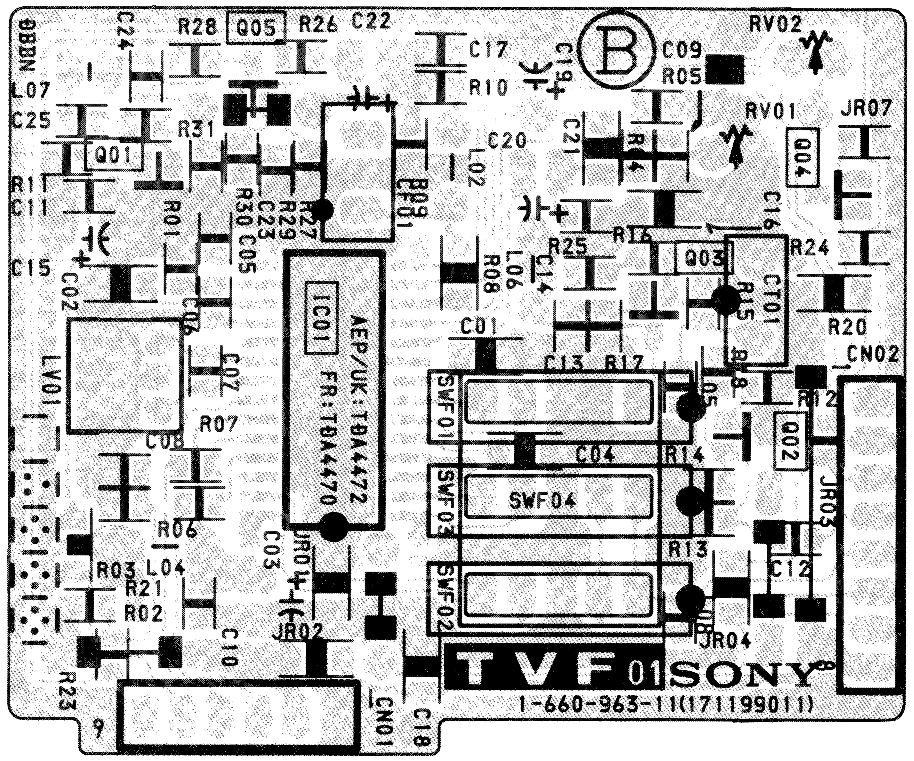
TUVIF (FR) (KV-29X1B ONLY)



B-#TVF-01<FR.>-IF.
TO TUNER CN01
CN02 8P
AFT
B/G, L
L, L'
IF UNBAL
IF BAL
IF BAL
TUAGC
+5V
CN01 6P
GND
+5V
AM
QSS
VIDEO
NC
+5V
SAW-DRIVER
Q02 BF799
Q03 BF799
CT01
L05 0.33μH
L06 1.5μH
SWF01
SWF02
SWF03
IC01 TDA4470-CFLG3
LV01 VCO-ADJ
AGCTOP
RV01 10k
RV02 10k
L'ADJ
L02 5.6μH
CF01
Q01 2SA1037K
JW02 7.5MM
GD-CORR
Q04 DTC144EK
IF (VIF, SIF)

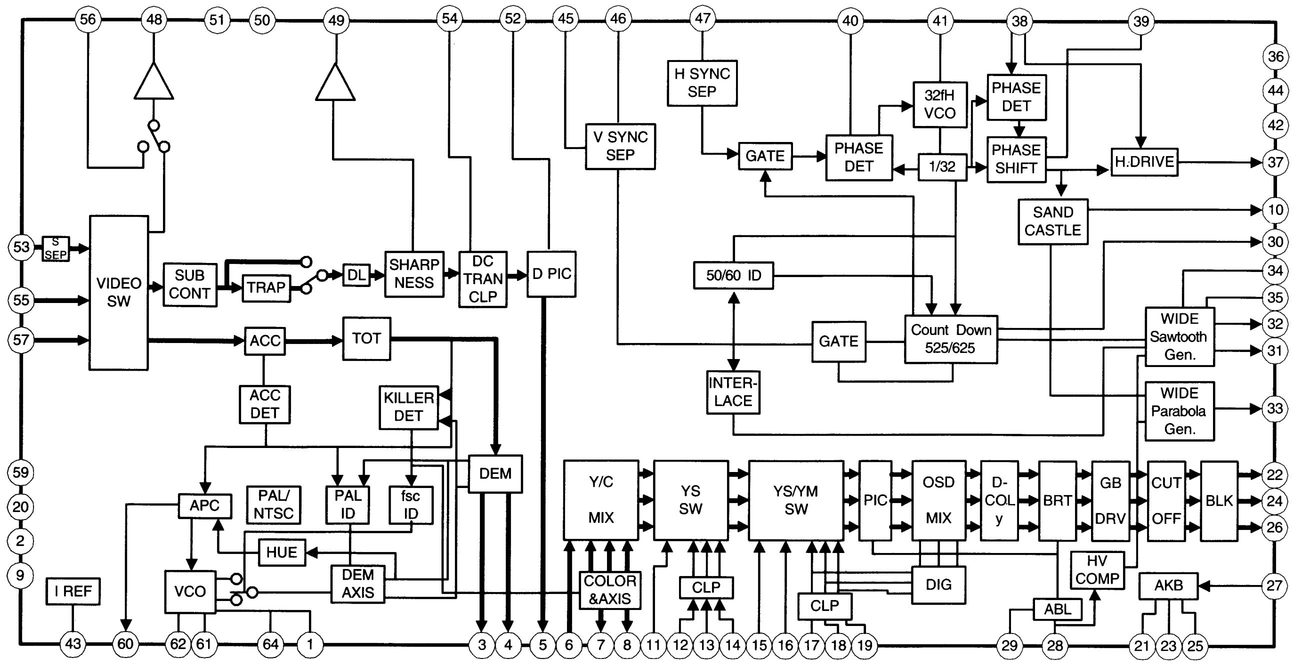
IF [VIF, SIF]

IF Board

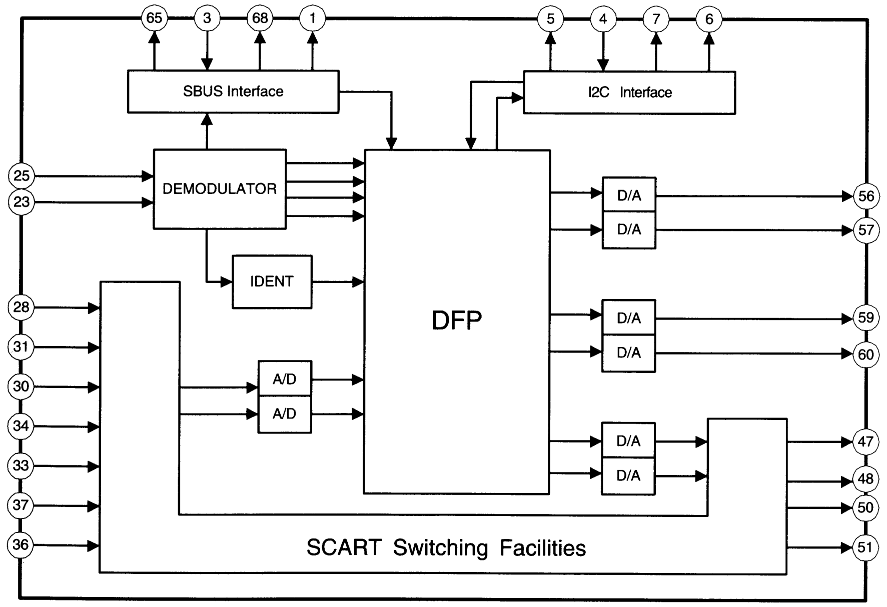


B
IC01
AEP/UK:TDA4472
FR:TDA4470
SWF01
SWF02
SWF03
SWF04
LV01
CN01
CN02
RV01
RV02
Q01
Q02
Q03
Q04
Q05
T V F 01 SONY
1-660-963-11(171199011)

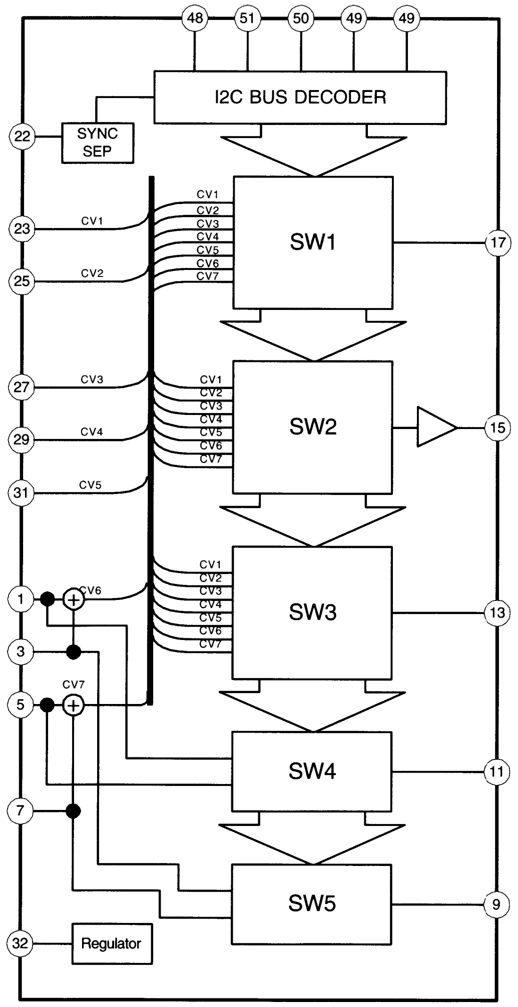
A BOARD IC301 CXA2000Q-TL


VIDEO SW
S SEP
SUB CONT
TRAP
DL
SHARP NESS
DC TRAN CLP
D PIC
V SYNC SEP
H SYNC SEP
GATE
PHASE DET
32fH VCO
1/32
PHASE DET
PHASE SHIFT
H.DRIVE
SAND CASTLE
50/60 ID
GATE
Count Down 525/625
WIDE Sawtooth Gen.
WIDE Parabola Gen.
INTER-LACE
ACC
TOT
ACC DET
KILLER DET
DEM
APC
PAL/ NTSC
PAL ID
fsc ID
HUE
VCO
DEM AXIS
I REF
Y/C MIX
YS SW
YS/YM SW
PIC
OSD MIX
D-COL y
BRT
GB DRV
CUT OFF
BLK
COLOR &AXIS
CLP
CLP
DIG
HV COMP
ABL
AKB
56 48 51 50 49 54 52 45 46 47 40 41 38 39
36 44 42 37 10 30 34 35 32 31 33 22 24 26 27
53 55 57 59 20 2 9
43 60 62 61 64 1 3 4 5 6 7 8 11 12 13 14 15 16 17 18 19 29 28 21 23 25

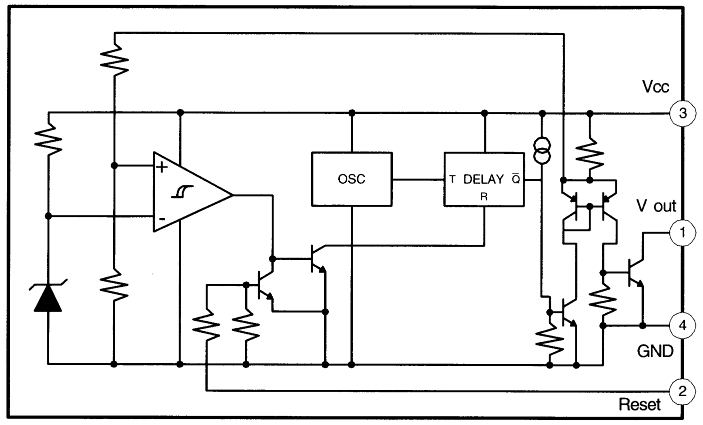
A BOARD IC202 MSP3410/MSP3400


65 3 68 1
5 4 7 6
SBUS Interface
I2C Interface
DEMODULATOR
IDENT
DFP
A/D
A/D
D/A
D/A
D/A
D/A
D/A
D/A
SCART Switching Facilities
25 23 28 31 30 34 33 37 36
56 57 59 60 47 48 50 51

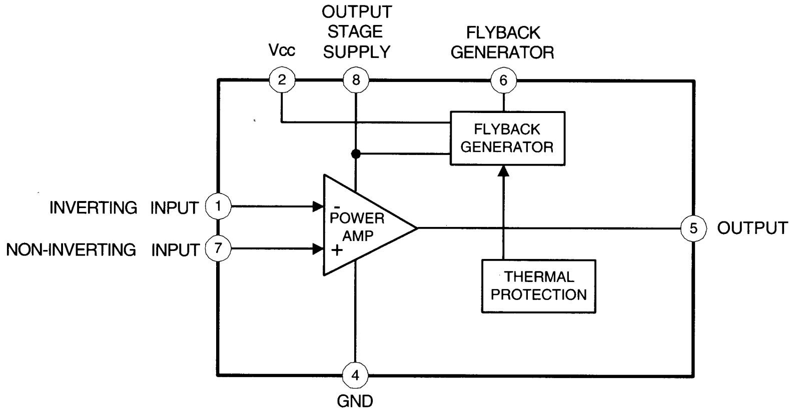
A BOARD IC201 CXA2040Q


48 51 50 49 49
I2C BUS DECODER
SYNC SEP
22
23 CV1
25 CV2
27 CV3
29 CV4
31 CV5
1 CV6
3
5 CV7
7
CV1 CV2 CV3 CV4 CV5 CV6 CV7
SW1
SW2
SW3
SW4
SW5
17 15 13 11 9
32
Regulator

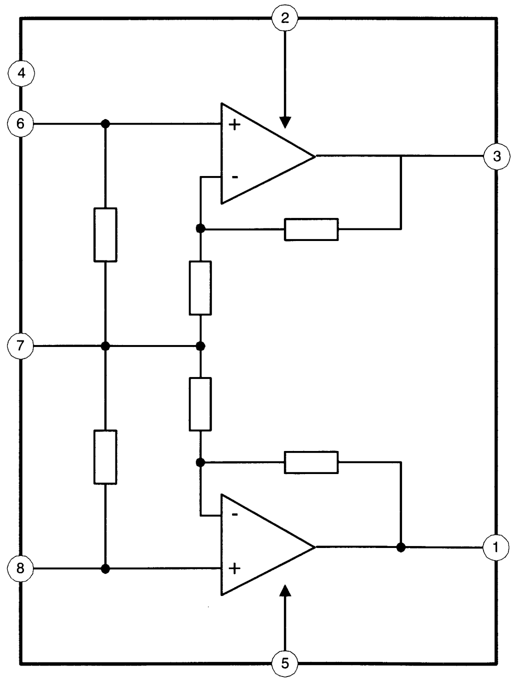
A BOARD IC4 PST593C


OSC
T DELAY Q̄
R
Vcc
3
V out
1
4
GND
2
Reset

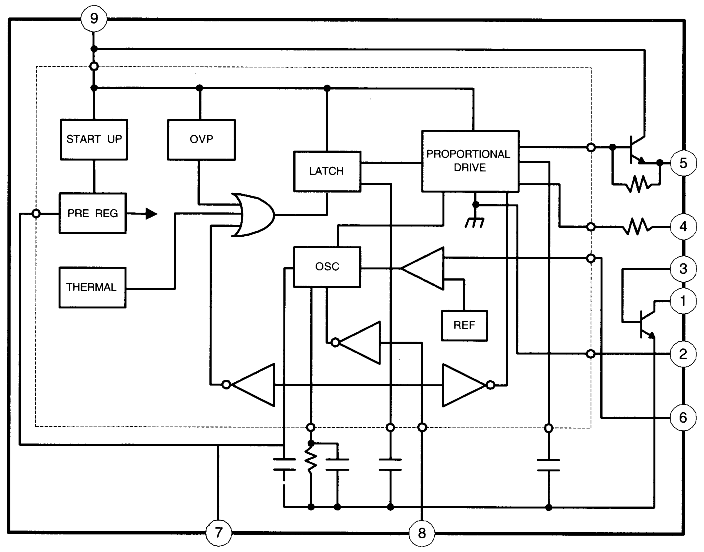
D BOARD IC500 STV9379


Vcc
OUTPUT STAGE SUPPLY
FLYBACK GENERATOR
2 8 6
FLYBACK GENERATOR
INVERTING INPUT 1
NON-INVERTING INPUT 7
POWER AMP
THERMAL PROTECTION
5 OUTPUT
4
GND

D BOARD IC1200 TDA7264

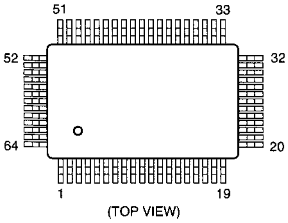


D BOARD IC600 STR-S6708

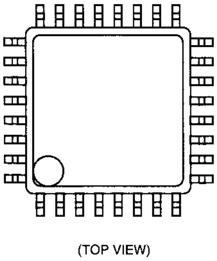

9
START UP
OVP
LATCH
PROPORTIONAL DRIVE
PRE REG
THERMAL
OSC
REF
5 4 3 1 2 6
7 8

5-4. SEMICONDUCTORS

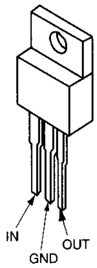
CXA2000Q-TL


51
33
52
32
64
20
1
19
(TOP VIEW)

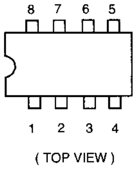
CXA2040Q-T4



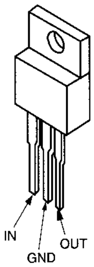
L4941BV



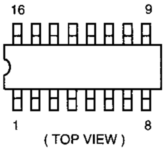
LM393P
M5216P
TDA2822M
µPC393C


8 7 6 5
1 2 3 4
(TOP VIEW)

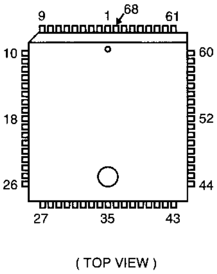
LM2940CT-5.0
LM2940CT
LM2940T-9.0
MCT7809CT
µPC2405HF



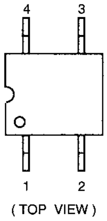
MC14052BDR2


16
9
1
8
(TOP VIEW)

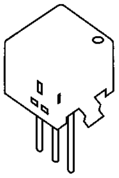
MSP3400C-PS
MSP3410-15


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

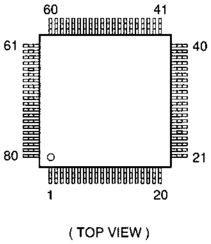
PST593C-MMP-4P


4
3
1
2
(TOP VIEW)

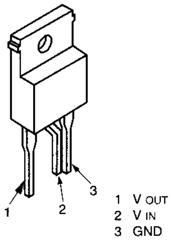
SBX1790-51



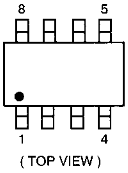
SDA5250M-GEG


60
41
61
40
80
21
1
20
(TOP VIEW)

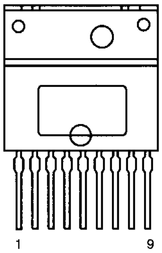
SE135N


1
2
3
1 V OUT
2 V IN
3 GND

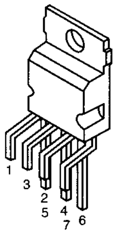
ST24E32M6TR


8
5
1
4
(TOP VIEW)

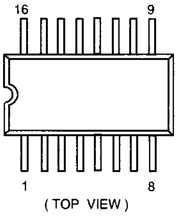
STR-S6708



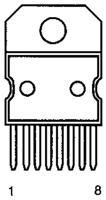
STV9379



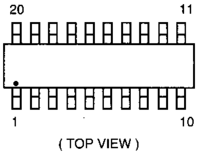
TDA4665T-T


16
9
1
8
(TOP VIEW)

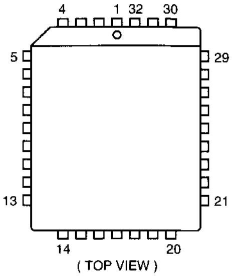
TDA7264



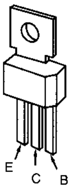
TDA8395T


20
11
1
10
(TOP VIEW)

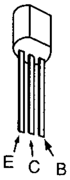
TMS27PC010A-15FML


4
1
32
30
5
29
13
21
14
20
(TOP VIEW)

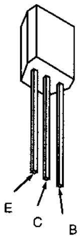
BF871-127



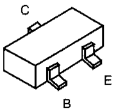
BF421L-AMMO
JA101TP-Q
2SA733-K
2SA933AS
2SA933S
2SA1091-O
2SC3502-F
2SC2808STP-R



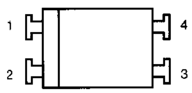
DTA144ES
DTC114ES
DTC143TS
DTC144ES
2SC1740S-RT



DTC144EK
2SA1037K
2SA1162-G
2SC2412K



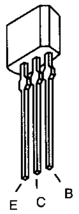
TLP721(D4-)

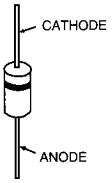


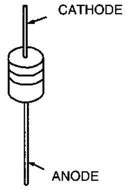
AU-01Z-V1
EG-1Z-V1
EGP20G
EL1Z
EM1-V1
EU-1-V1
EU2-V1
FML-G12S
GP08D
RGP02
RGP10GPKG23
RGP15GPKG23
RU3YX
RU4AM-T3
RU4DS

MTZJ-3.6A
MTZJ-3.9B
MTZJ-5.1B
MTZJ-5.6B
MTZJ-6.2B
MTZJ-6.8B
MTZJ-7.5C
MTZJ-9.1
MTZJ-T-77-9.1A
MTZJ-10
MTZJ-39
RD3.9ESB2
RD5.1ESB2
RD5.6ESB2
RD6.2ESB2
RD6.8ESB2
RD7.5ESB2
RD10ESB2
RD39ES-B2
1SS133T-77

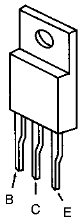
2SC2785-HFE



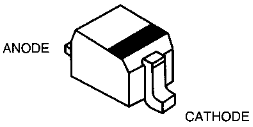

CATHODE
ANODE


CATHODE
ANODE

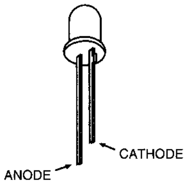
2SA1667
2SA1837
2SC3852A



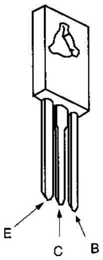
BAS216
DTZ6.8C
DTZ9.1
DTZ33B
MA8330
1SS355
UDZ-TE-17-5.6B
UDZ-TE-17-9.1B


ANODE
CATHODE

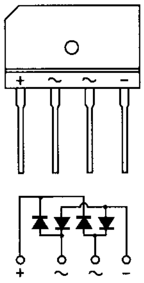
SLA-570KT3F


CATHODE
ANODE

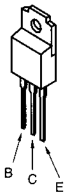
2SC2688-LK



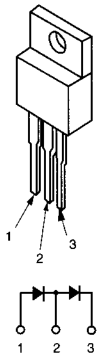
D4SB60L



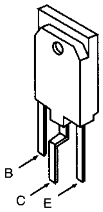
2SC4793



FMS-3FU



2SC4927-01



SECTION 6

EXPLODED VIEWS

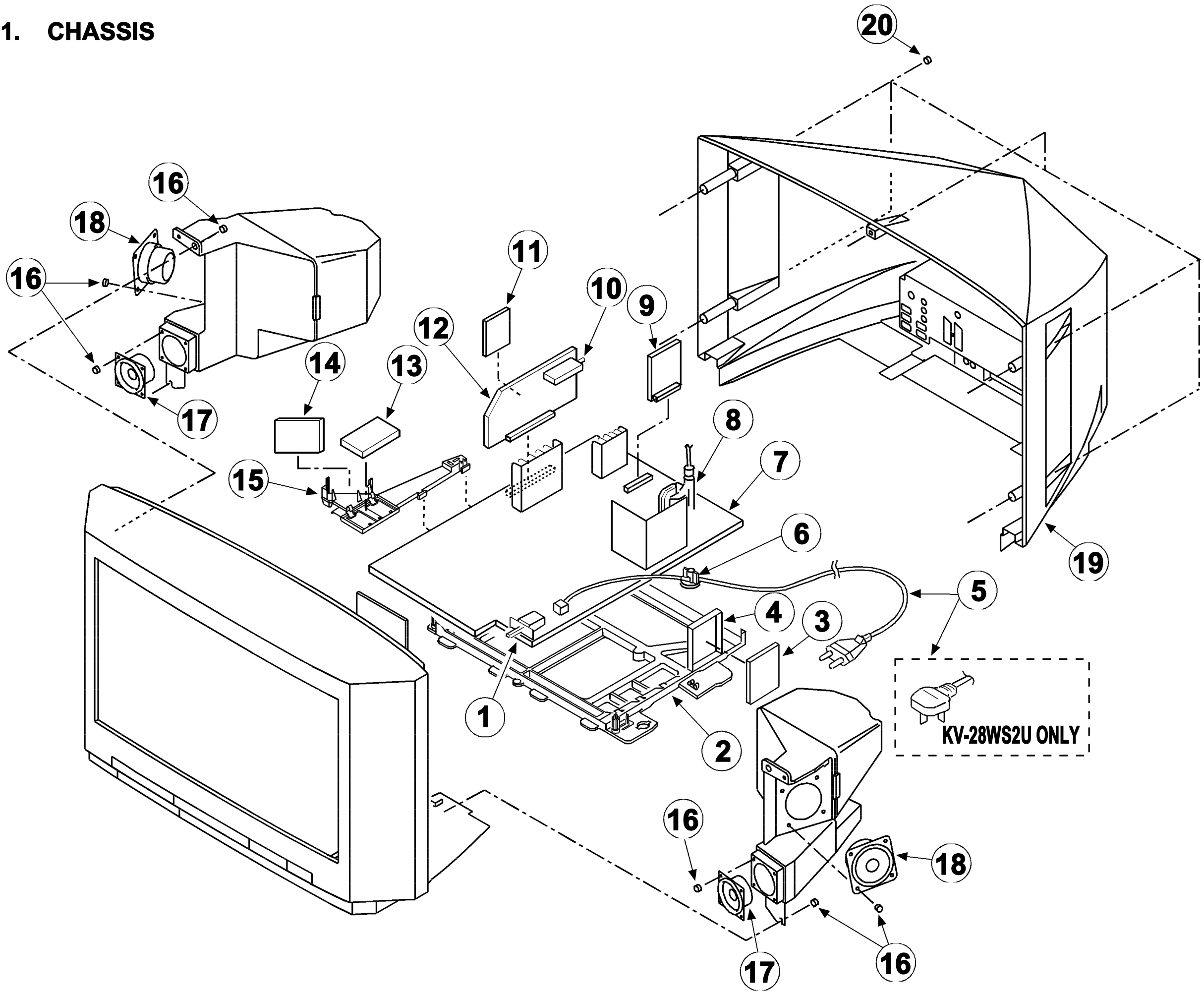
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

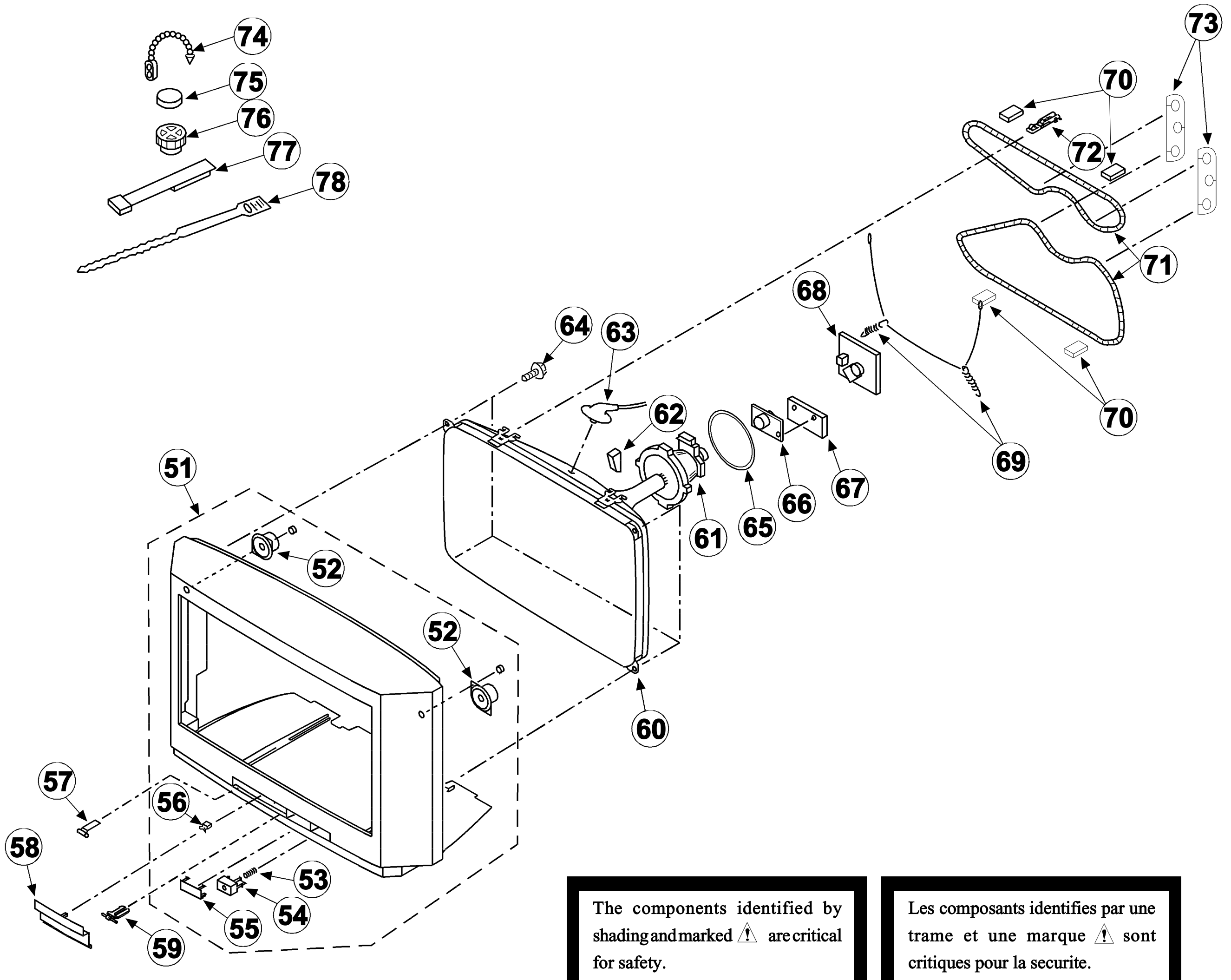
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS



REF NO		PART NO	DESCRIPTION	REMARK
1	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
2		*4-203-315-01	BRACKET, MAIN	
3		*A-1640-235-A	D3 BOARD, COMPLETE	
4		*4-203-404-01	BRACKET, D3	
5	⚠	1-751-680-11	CORD, POWER (WITH NOISE FILTER) 2.5A/250V (KV-28WS2B/28WS2D/28WS2E)	
	⚠	1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V	(KV-28WS2K/28WS2R)
	⚠	1-776-204-11	CORD, POWER (FILTER) 3.0A/250V	(KV-28WS2U)
6		*4-202-531-01	AC CORD LOCK (SC)	
7		*A-1642-190-A	D BOARD, COMPLETE	
8	⚠	1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
9		*A-1640-214-A	D2 BOARD, COMPLETE	
10		1-693-340-11	TUNER/VIF (FR) (KV-28WS2B)	
		1-693-338-11	TUNER/VIF (AEP) (KV-28WS2D/28WS2E/28WS2K/28WS2R)	
		1-693-339-11	TUNER/VIF (UK) (KV-28WS2U)	
11		*A-1630-529-A	A1 BOARD, COMPLETE	
12		*A-1632-516-A	A BOARD, COMPLETE (KV-28WS2B)	
		*A-1632-471-A	A BOARD, COMPLETE (KV-28WS2D)	
		*A-1632-517-A	A BOARD, COMPLETE (KV-28WS2E)	
		*A-1632-529-A	A BOARD, COMPLETE (KV-28WS2K)	
		*A-1632-530-A	A BOARD, COMPLETE (KV-28WS2R)	
		*A-1632-515-A	A BOARD, COMPLETE (KV-28WS2U)	
13		*A-1651-088-A	J BOARD, COMPLETE	
14		*A-1649-018-A	K1 BOARD, COMPLETE	
15		*4-203-537-01	BRACKET, J-K-T	
16		4-039-355-11	SCREW(4X12), (+) BV TAPPING	
17		1-505-154-11	SPEAKER (6.5CM)	
18		1-505-155-11	SPEAKER (10CM)	
19		4-203-543-01	COVER, REAR	
20		4-039-358-01	SCREW (4X16), (+) BV TAPPING	

6-2. PICTURE TUBE



The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF NO		PART NO	DESCRIPTION	REMARK
51		A-1603-045-A	BEZNET ASSY	52-56
52		1-504-418-21	SPEAKER (5CM)	
53		4-202-964-01	SPRING	
54		4-203-540-01	BUTTON, POWER	
55		4-203-539-01	WINDOW ORNAMENTAL	
56		4-047-464-01	CATCHER PUSH	
57		4-045-250-01	DAMPER	
58		4-203-542-01	DOOR, CONTROL	
59		4-202-555-01	SHAFT, DOOR	
60	⚠	8-737-763-05	PICTURE TUBE (SD-284T) (W66LGY011X)	
61	⚠	8-451-434-21	DEFLECTION YOKE (Y28GIA-B)	
62		3-704-495-01	SPACER, DY	
63	⚠	1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
64		4-036-188-01	SCREW (M), PT	
65		1-452-724-22	COIL, NA ROTATION (RT-165)	
66	⚠	8-453-005-61	NECK ASSY PICTURE TUBE (NA297-M6)	

REF NO		PART NO	DESCRIPTION	REMARK
67		*A-1644-070-A	VM BOARD, COMPLETE	
68		*A-1638-079-A	C BOARD, COMPLETE	
69		4-369-318-31	SPRING, TENSION	
70		*4-203-390-01	CUSHION, DGC	
71	⚠	1-411-893-11	COIL DEGAUSSING	
72		4-202-463-01	CLIP, DGC (25")	
73		*4-050-252-01	SPACER, DGC	
74		4-308-870-00	CLIP, LEAD WIRE	
75		1-452-032-00	MAGNET, DISK; 10MM Ø	
76		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
77		X-4387-214-1	PERMALLOY ASSY, CORRECTION	
78		3-701-007-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors

When indicating parts by reference number, please include the board name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH, μH : mH

RESISTORS

- All resistors are in ohms
- F : nonflammable

A1

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1630-529-A	A1 BOARD, COMPLETE ******************	
		< CAPACITOR >	
C1201	1-164-695-11	CERAMIC CHIP 0.0022MF 5%	50V
C1202	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1203	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1204	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1205	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1206	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1207	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1208	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1209	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1210	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1211	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1212	1-126-933-11	ELECT 100MF 20%	16V
C1215	1-126-967-11	ELECT 47MF 20%	16V
C1216	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1217	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1218	1-126-964-11	ELECT 10MF 20%	50V
C1219	1-126-967-11	ELECT 47MF 20%	16V
C1220	1-163-145-00	CERAMIC CHIP 0.0015MF 5%	50V
C1221	1-163-145-00	CERAMIC CHIP 0.0015MF 5%	50V
C1222	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1223	1-126-967-11	ELECT 47MF 20%	16V
C1224	1-126-967-11	ELECT 47MF 20%	16V
C1225	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1226	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1227	1-126-964-11	ELECT 10MF 20%	50V
C1228	1-163-145-00	CERAMIC CHIP 0.0015MF 5%	50V
C1229	1-163-145-00	CERAMIC CHIP 0.0015MF 5%	50V
C1230	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1231	1-126-967-11	ELECT 47MF 20%	16V
C1232	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1233	1-126-967-11	ELECT 47MF 20%	16V
C1236	1-126-967-11	ELECT 47MF 20%	16V
C1237	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1238	1-163-038-00	CERAMIC CHIP 0.1MF	25V
		< CONNECTOR >	
CN1202	1-766-929-11	CONNECTOR, BOARD TO BOARD 8P	
CN1203	1-766-929-11	CONNECTOR, BOARD TO BOARD 8P	
CN1204	*1-564-519-11	PLUG, CONNECTOR 4P	
		< DIODE >	
D1201	8-719-988-62	DIODE 1SS355	
		< IC >	
IC1201	8-759-377-62	IC DSP56004-FJ66R2	
IC1202	8-759-349-93	IC KM62256CLG-7	
IC1203	8-759-384-64	IC TDA1387T/N1/T3	
IC1204	8-759-384-64	IC TDA1387T/N1/T3	
IC1205	8-759-387-76	IC TL072CDR	
IC1206	8-759-387-76	IC TL072CDR	
IC1207	8-759-991-41	IC L78L05ACZ	
		< COIL >	
L1204	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1205	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1206	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1207	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1208	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1209	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1210	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1211	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1212	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1213	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1220	1-410-989-11	INDUCTOR CHIP 0.47UH	
L1221	1-410-989-11	INDUCTOR CHIP 0.47UH	
		< TRANSISTOR >	
Q1201	8-729-902-99	TRANSISTOR DTC114TK	
		< RESISTOR >	
R1202	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1204	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1205	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1206	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R1207	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1208	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1209	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1210	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1211	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1212	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1213	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1214	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R1215	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R1220	1-216-001-00	METAL GLAZE 10 5%	1/10W

A1 **A**

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1221	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1222	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1223	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R1224	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1225	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1226	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1227	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R1228	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1229	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1230	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R1231	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1232	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1233	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1234	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R1235	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1236	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1237	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1238	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1239	1-216-025-00	METAL GLAZE 100 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-516-A	A BOARD, COMPLETE (KV-28WS2B) *****************	
	*A-1632-471-A	A BOARD, COMPLETE (KV-28WS2D) *****************	
	*A-1632-517-A	A BOARD, COMPLETE (KV-28WS2E) *****************	
	*A-1632-529-A	A BOARD, COMPLETE (KV-28WS2K) *****************	
	*A-1632-530-A	A BOARD, COMPLETE (KV-28WS2R) *****************	
	*A-1632-515-A	A BOARD, COMPLETE (KV-28WS2U) *****************	
	1-750-797-11	SOCKET, PLCC	

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C2	1-126-965-11	ELECT 22MF 20% 50V	
C3	1-163-104-00	CERAMIC CHIP 30PF 5% 50V	
C4	1-163-104-00	CERAMIC CHIP 30PF 5% 50V	
C8	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C10	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C11	1-163-243-11	CERAMIC CHIP 47PF 5% 50V	
C14	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C15	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C18	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C20	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C21	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C22	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C43	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C45	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C80	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C81	1-164-005-11	CERAMIC CHIP 0.47MF 25V	
C82	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C90	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C101	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C102	1-126-934-11	ELECT 220MF 20% 16V	
C103	1-126-965-11	ELECT 22MF 20% 50V	
C104	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C110	1-126-967-11	ELECT 47MF 20% 16V	
C112	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C113	1-126-967-11	ELECT 47MF 20% 16V	
C115	1-102-112-00	CERAMIC 330PF 10% 50V	(KV-28WS2B)
C120	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C121	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C122	1-163-137-00	CERAMIC CHIP 680PF 5% 50V	
C123	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C124	1-137-399-11	FILM 0.1MF 5% 50V	
C201	1-163-139-00	CERAMIC CHIP 820PF 10% 50V	
C202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C203	1-126-933-11	ELECT 100MF 20% 16V	
C204	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C205	1-126-965-11	ELECT 22MF 20% 50V	
C206	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C207	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C208	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C209	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C210	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C211	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C212	1-164-346-11	CERAMIC CHIP 1MF 16V	
C213	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C214	1-164-346-11	CERAMIC CHIP 1MF 16V	
C215	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C216	1-126-967-11	ELECT 47MF 20% 16V	
C217	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C218	1-126-967-11	ELECT 47MF 20% 16V	
C219	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C220	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C221	1-164-505-11	CERAMIC CHIP 2.2MF 16V	
C222	1-164-346-11	CERAMIC CHIP 1MF 16V	
C223	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C224	1-164-346-11	CERAMIC CHIP 1MF 16V	
C225	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C226	1-126-967-11	ELECT 47MF 20% 16V	
C227	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C228	1-126-967-11	ELECT 47MF 20% 16V	
C229	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C230	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C231	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C232	1-126-967-11	ELECT 47MF 20% 16V	
C251	1-163-087-00	CERAMIC CHIP 4PF 0.25PF 50V	
C252	1-163-087-00	CERAMIC CHIP 4PF 0.25PF 50V	
C253	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C254	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C255	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C256	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C257	1-126-965-11	ELECT 22MF 20% 50V	
C258	1-126-964-11	ELECT 10MF 20% 50V	
C259	1-164-336-11	CERAMIC CHIP 0.33MF 25V	
C260	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C261	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C262	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C263	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C264	1-126-962-11	ELECT 3.3MF 20% 50V	
C265	1-126-964-11	ELECT 10MF 20% 50V	
C266	1-126-964-11	ELECT 10MF 20% 50V	
C267	1-126-965-11	ELECT 22MF 20% 50V	
C268	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C269	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C270	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C271	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C272	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C273	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C274	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C275	1-164-346-11	CERAMIC CHIP 1MF	16V
C276	1-164-346-11	CERAMIC CHIP 1MF	16V
C277	1-164-346-11	CERAMIC CHIP 1MF	16V
C278	1-164-346-11	CERAMIC CHIP 1MF	16V
C279	1-126-965-11	ELECT 22MF 20%	50V
C280	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C281	1-126-965-11	ELECT 22MF 20%	50V
C282	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C300	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
C301	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C302	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C303	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C304	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C305	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C306	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C307	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C308	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C309	1-164-346-11	CERAMIC CHIP 1MF	16V
C310	1-164-346-11	CERAMIC CHIP 1MF	16V
C311	1-164-346-11	CERAMIC CHIP 1MF	16V
C312	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C313	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C315	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C319	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C320	1-126-965-11	ELECT 22MF 20%	50V
C321	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C322	1-163-037-11	CERAMIC CHIP 0.22MF 10%	50V
C323	1-163-037-11	CERAMIC CHIP 0.22MF 10%	50V
C324	1-163-037-11	CERAMIC CHIP 0.22MF 10%	50V
C325	1-164-346-11	CERAMIC CHIP 1MF	16V
C326	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C327	1-137-374-11	FILM 0.047MF 5%	50V
C328	1-126-964-11	ELECT 10MF 20%	50V
C329	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C330	1-130-777-00	FILM 0.1MF 5%	63V
C331	1-137-581-11	FILM 0.1MF 5%	100V
C332	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C333	1-126-933-11	ELECT 100MF 20%	16V
C334	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C335	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C336	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C337	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C338	1-164-346-11	CERAMIC CHIP 1MF	16V
C339	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C340	1-126-933-11	ELECT 100MF 20%	16V
C341	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C342	1-164-346-11	CERAMIC CHIP 1MF	16V
C343	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C344	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C347	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C348	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C350	1-126-964-11	ELECT 10MF 20%	50V
C351	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C352	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C353	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C354	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C355	1-126-965-11	ELECT 22MF 20%	50V
C356	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C357	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C358	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C359	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
C360	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
C370	1-164-505-11	CERAMIC CHIP 2.2MF (KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)	16V
C371	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C372	1-164-004-11	CERAMIC CHIP 0.1MF 10% (KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)	25V
C373	1-164-489-11	CERAMIC CHIP 0.22MF 10% (KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)	16V
C1001	1-163-235-11	CERAMIC CHIP 22PF 5%	50V
C1002	1-163-235-11	CERAMIC CHIP 22PF 5%	50V
C1010	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1013	1-126-965-11	ELECT 22MF 20%	50V
C1014	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1015	1-164-489-11	CERAMIC CHIP 0.22MF 10%	16V
C1020	1-163-101-00	CERAMIC CHIP 22PF 5%	50V
		< FILTER >	
CF120	1-409-327-00	TRAP, CERAMIC (6.5MHz) (KV-28WS2B)	
		< CONNECTOR >	
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN2	*1-568-880-51	PIN, CONNECTOR 5P	
CN4	1-568-878-51	PIN, CONNECTOR 3P	
CN201	1-766-296-11	CONNECTOR, DUAL SCART	
CN202	1-766-928-11	CONNECTOR, BOARD TO BOARD 8P	
CN203	1-766-928-11	CONNECTOR, BOARD TO BOARD 8P	
CN301	*1-568-882-51	PIN, CONNECTOR 7P	
		< DIODE >	
D2	8-719-988-62	DIODE 1SS355	
D10	8-719-158-15	DIODE RD5.6S-B	
D11	8-719-158-15	DIODE RD5.6S-B	
D12	8-719-158-15	DIODE RD5.6S-B	
D101	8-719-977-81	DIODE DTZ33B	
D201	8-719-977-22	DIODE DTZ9.1	
D202	8-719-977-22	DIODE DTZ9.1	
D203	8-719-977-22	DIODE DTZ9.1	
D204	8-719-977-22	DIODE DTZ9.1	
D205	8-719-977-22	DIODE DTZ9.1	
D206	8-719-977-22	DIODE DTZ9.1	
D207	8-719-977-22	DIODE DTZ9.1	
D208	8-719-977-22	DIODE DTZ9.1	
D209	8-719-977-22	DIODE DTZ9.1	
D210	8-719-977-22	DIODE DTZ9.1	
D211	8-719-977-22	DIODE DTZ9.1	
D212	8-719-977-22	DIODE DTZ9.1	
D213	8-719-977-22	DIODE DTZ9.1	
D214	8-719-977-22	DIODE DTZ9.1	
D215	8-719-977-22	DIODE DTZ9.1	
D216	8-719-158-15	DIODE RD5.6S-B	
D217	8-719-158-15	DIODE RD5.6S-B	
D218	8-719-158-15	DIODE RD5.6S-B	
D220	8-719-988-62	DIODE 1SS355	
D221	8-719-988-62	DIODE 1SS355	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D222	8-719-977-22	DIODE DTZ9.1	
D223	8-719-977-22	DIODE DTZ9.1	
D224	8-719-977-22	DIODE DTZ9.1	
D225	8-719-977-22	DIODE DTZ9.1	
D226	8-719-977-22	DIODE DTZ9.1	
D227	8-719-977-13	DIODE DTZ-6.8C	
D251	8-719-047-16	DIODE BAS216	
D320	8-719-977-22	DIODE DTZ9.1	
D370	8-719-047-16	DIODE BAS216	(KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)
D1010	8-719-036-58	DIODE MA3030-H(TX)	
		< LINE FILTER >	
FL101	1-236-071-11	ENCAPSULATED COMPONENT	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-071-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL1001	1-236-071-11	ENCAPSULATED COMPONENT	
		< IC >	
IC1	8-759-376-75	IC SDA5250M-C5-GEG	
IC2	8-759-334-20	IC ST24E32M6TR	
IC3	8-759-353-82	IC TMS27PC020-15FML	
IC4	8-759-394-57	IC PST593C-MMP-4P	
IC201	8-752-076-06	IC CXA2040Q-T4	
IC202	8-759-376-80	IC MSP3410B-PS-F7-T	(KV-28WS2B/28WS2E/28WS2U)
	8-759-376-56	IC MSP3400C-PS-C6-T	(KV-28WS2D/28WS2K/28WS2R)
IC203	8-759-385-76	IC MC14052BDR2	
IC301	8-752-076-09	IC CXA2000Q-TL	
IC302	8-759-288-85	IC TDA4665T-T	
IC303	8-759-251-56	IC TDA8395T/N3	(KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)
IC1001	8-759-376-76	IC SDA5273CP-GEG	
		< COIL >	
L10	1-410-379-31	INDUCTOR CHIP 6.8UH	
L102	1-408-406-00	INDUCTOR 5.6UH	(KV-28WS2B)
L111	1-410-993-11	INDUCTOR CHIP 1UH	
L120	1-408-408-00	INDUCTOR 8.2UH	
L121	1-408-397-00	INDUCTOR 1UH	
L122	1-408-408-00	INDUCTOR 8.2UH	
L300	1-408-607-31	INDUCTOR 2.2UH	
		< TRANSISTOR >	
Q1	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q4	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q15	8-729-216-22	TRANSISTOR 2SA1162-G	
Q17	8-729-216-22	TRANSISTOR 2SA1162-G	
Q80	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q81	8-729-216-22	TRANSISTOR 2SA1162-G	
Q110	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q111	8-729-216-22	TRANSISTOR 2SA1162-G	
Q112	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q113	8-729-216-22	TRANSISTOR 2SA1162-G	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
Q120	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q121	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-28WS2B)
Q122	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q124	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-28WS2B)
Q130	8-729-216-22	TRANSISTOR 2SA1162-G	(KV-28WS2B)
Q201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q205	8-729-901-01	TRANSISTOR DTC144EK	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-216-22	TRANSISTOR 2SA1162-G	
Q300	8-729-901-01	TRANSISTOR DTC144EK	
Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q305	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q306	8-729-901-01	TRANSISTOR DTC144EK	
Q330	8-729-216-22	TRANSISTOR 2SA1162-G	
Q331	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q332	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1001	8-729-901-01	TRANSISTOR DTC144EK	
Q1002	8-729-216-22	TRANSISTOR 2SA1162-G	
		< RESISTOR >	
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR204	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR205	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR206	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR207	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR304	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR305	1-216-296-91	METAL GLAZE 0 5% 1/8W	
R1	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R4	1-216-013-00	METAL GLAZE 33 5% 1/10W	
R5	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R7	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R8	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R9	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R10	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R11	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R12	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R18	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R19	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R20	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R21	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R24	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R25	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R28	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R29	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R30	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R31	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R32	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R33	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R34	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R35	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R36	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R37	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R38	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R39	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R40	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R42	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R44	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R46	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R47	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R48	1-216-121-91	METAL GLAZE 1M 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R49	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R50	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R51	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R52	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R53	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R54	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R58	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	
R59	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R60	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R61	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R62	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R63	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R64	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R65	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R66	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R67	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R69	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R70	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R71	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R72	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R73	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R74	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R75	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R76	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R77	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R78	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R79	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R80	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R81	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R82	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R83	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R84	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R85	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R86	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R87	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R88	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R91	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R92	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R93	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R94	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R95	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R97	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R98	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R101	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R102	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R103	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R104	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R105	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R106	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R110	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R111	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R112	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R113	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R114	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R115	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R116	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R117	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	(KV-28WS2B/28WS2D/28WS2E/28WS2K/28WS2R)
	1-216-056-00	METAL GLAZE 2.0K 5% 1/10W	(KV-28WS2U)

REF.NO.	PART NO.	DESCRIPTION	REMARK
R118	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R119	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R120	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R121	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R122	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R123	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R124	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R125	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R126	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R127	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R128	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R129	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R130	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R131	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R132	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R133	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R134	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R135	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R136	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R137	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R138	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R200	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R201	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R202	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R203	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R204	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R205	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R206	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R208	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R209	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R210	1-216-017-91	METAL GLAZE 47 5% 1/10W	
R211	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R212	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R213	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R214	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R216	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R217	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R218	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R219	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R220	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R221	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R222	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R223	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R224	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R225	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R226	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R227	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R228	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R229	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R230	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R232	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R233	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R234	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R235	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R236	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R237	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R238	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R239	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R240	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R241	1-216-089-00	METAL GLAZE 47K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R242	1-216-039-00	METAL GLAZE	390	5%	1/10W
R243	1-216-033-00	METAL GLAZE	220	5%	1/10W
R244	1-216-033-00	METAL GLAZE	220	5%	1/10W
R245	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R246	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R247	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R249	1-216-001-00	METAL GLAZE	10	5%	1/10W
R251	1-216-025-00	METAL GLAZE	100	5%	1/10W
R252	1-216-025-00	METAL GLAZE	100	5%	1/10W
R253	1-216-025-00	METAL GLAZE	100	5%	1/10W
R254	1-216-025-00	METAL GLAZE	100	5%	1/10W
R255	1-216-025-00	METAL GLAZE	100	5%	1/10W
R256	1-216-025-00	METAL GLAZE	100	5%	1/10W
R270	1-216-022-00	METAL GLAZE	75	5%	1/10W
R271	1-216-022-00	METAL GLAZE	75	5%	1/10W
R272	1-216-022-00	METAL GLAZE	75	5%	1/10W
R273	1-216-022-00	METAL GLAZE	75	5%	1/10W
R280	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R281	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R282	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R284	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R285	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R300	1-216-025-00	METAL GLAZE	100	5%	1/10W
R301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R302	1-216-295-00	METAL GLAZE	0	5%	1/10W
R303	1-216-295-00	METAL GLAZE	0	5%	1/10W
R308	1-216-025-00	METAL GLAZE	100	5%	1/10W
R309	1-216-033-00	METAL GLAZE	220	5%	1/10W
R310	1-216-033-00	METAL GLAZE	220	5%	1/10W
R311	1-216-295-00	METAL GLAZE	0	5%	1/10W
R312	1-216-295-00	METAL GLAZE	0	5%	1/10W
R313	1-216-295-00	METAL GLAZE	0	5%	1/10W
R314	1-216-295-00	METAL GLAZE	0	5%	1/10W
R315	1-216-295-00	METAL GLAZE	0	5%	1/10W
R316	1-216-033-00	METAL GLAZE	220	5%	1/10W
R318	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R319	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R320	1-216-025-00	METAL GLAZE	100	5%	1/10W
R321	1-216-025-00	METAL GLAZE	100	5%	1/10W
R322	1-216-025-00	METAL GLAZE	100	5%	1/10W
R323	1-216-033-00	METAL GLAZE	220	5%	1/10W
R324	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R326	1-216-025-00	METAL GLAZE	100	5%	1/10W
R327	1-216-025-00	METAL GLAZE	100	5%	1/10W
R328	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R329	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R330	1-216-025-00	METAL GLAZE	100	5%	1/10W
R331	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R332	1-216-025-00	METAL GLAZE	100	5%	1/10W
R333	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R334	1-216-041-00	METAL GLAZE	470	5%	1/10W
R335	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R336	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R337	1-216-025-00	METAL GLAZE	100	5%	1/10W
R338	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R339	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R340	1-216-025-00	METAL GLAZE	100	5%	1/10W
R341	1-216-025-00	METAL GLAZE	100	5%	1/10W
R342	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R343	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R344	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R345	1-216-025-00	METAL GLAZE	100	5%	1/10W
R346	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R347	1-216-025-00	METAL GLAZE	100	5%	1/10W
R348	1-216-025-00	METAL GLAZE	100	5%	1/10W
R349	1-216-025-00	METAL GLAZE	100	5%	1/10W
R350	1-216-042-00	METAL GLAZE	510	5%	1/10W
R351	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R352	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R353	1-216-033-00	METAL GLAZE	220	5%	1/10W
R354	1-216-295-00	METAL GLAZE	0	5%	1/10W
R357	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R370	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1002	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1010	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1012	1-216-041-00	METAL GLAZE	470	5%	1/10W
R1014	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1020	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R1021	1-216-029-00	METAL GLAZE	150	5%	1/10W
R1022	1-216-029-00	METAL GLAZE	150	5%	1/10W
R1023	1-216-029-00	METAL GLAZE	150	5%	1/10W
R1024	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1026	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1027	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1028	1-216-025-00	METAL GLAZE	100	5%	1/10W

< TUNER >

REF.NO.	PART NO.	DESCRIPTION
TU101	1-693-338-11	TUNER/VIF (AEP) (KV-28WS2D/28WS2E/28WS2K/28WS2R)
	1-693-340-11	TUNER/VIF (FR) (KV-28WS2B)
	1-693-339-11	TUNER/VIF (UK) (KV-28WS2U)

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X1	1-767-154-21	VIBRATOR, CERAMIC
X201	1-760-628-11	VIBRATOR, CRYSTAL 18.432MHz
X301	1-567-504-11	OSCILLATOR, CRYSTAL
X302	1-567-505-11	OSCILLATOR, CRYSTAL
X303	1-767-127-11	VIBRATOR, CERAMIC
X1001	1-579-965-21	VIBRATOR, CRYSTAL

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*A-1638-079-A C BOARD, COMPLETE
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< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C702	1-102-115-00	CERAMIC	560PF	10%	50V
C703	1-102-116-00	CERAMIC	680PF	10%	50V
C708	1-162-114-00	CERAMIC	0.0047MF		2KV
C710	1-107-652-11	ELECT	10MF	20%	250V
C712	1-102-116-00	CERAMIC	680PF	10%	50V
C714	1-126-967-11	ELECT	47MF	20%	16V
C717	1-102-114-00	CERAMIC	470PF	10%	50V
C718	1-102-114-00	CERAMIC	470PF	10%	50V
C719	1-102-114-00	CERAMIC	470PF	10%	50V
C722	1-101-880-00	CERAMIC	47PF	5%	50V
C723	1-101-880-00	CERAMIC	47PF	5%	50V
C724	1-101-880-00	CERAMIC	47PF	5%	50V

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Replace only with the part number specified.

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN701	1-778-037-11	PIN, CONNECTOR (5MM PITCH) 6P	
CN702	1-695-915-11	TAB (CONTACT)	
CN703	*1-568-882-51	PIN, CONNECTOR 7P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D701	8-719-109-72	DIODE RD3.9ES-B2	
D702	8-719-991-33	DIODE 1SS133T-77	
D706	8-719-991-33	DIODE 1SS133T-77	
D707	8-719-991-33	DIODE 1SS133T-77	
D708	8-719-991-33	DIODE 1SS133T-77	
D709	8-719-991-33	DIODE 1SS133T-77	
D710	8-719-991-33	DIODE 1SS133T-77	
D711	8-719-302-43	DIODE EL1Z	
D714	8-719-991-33	DIODE 1SS133T-77	
D715	8-719-991-33	DIODE 1SS133T-77	
D716	8-719-991-33	DIODE 1SS133T-77	
D717	8-719-991-33	DIODE 1SS133T-77	
D718	8-719-991-33	DIODE 1SS133T-77	
D719	8-719-991-33	DIODE 1SS133T-77	
D720	8-719-991-33	DIODE 1SS133T-77	

< CRT SOCKET >

REF.NO.	PART NO.	DESCRIPTION	REMARK
J701	⚠ 1-526-990-22	SOCKET, CRT	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L704	1-408-609-41	INDUCTOR 33UH	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-906-70	TRANSISTOR BF871-127	
Q704	8-729-200-17	TRANSISTOR 2SA1091-O	
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q706	8-729-906-70	TRANSISTOR BF871-127	
Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q709	8-729-906-70	TRANSISTOR BF871-127	
Q710	8-729-200-17	TRANSISTOR 2SA1091-O	
Q711	8-729-026-41	TRANSISTOR 2SA933AS-QRT	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R704	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R705	1-260-103-11	CARBON 2.2K 5% 1/2W	
R706	1-247-815-91	CARBON 220 5% 1/4W	
R707	1-249-408-11	CARBON 180 5% 1/4W	
R709	1-202-844-00	SOLID 330K 10% 1/2W	
R711	1-249-423-11	CARBON 3.3K 5% 1/4W	
R712	1-260-103-11	CARBON 2.2K 5% 1/2W	
R714	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R715	1-249-417-11	CARBON 1K 5% 1/4W	
R716	1-247-815-91	CARBON 220 5% 1/4W	
R717	1-249-408-11	CARBON 180 5% 1/4W	
R718	1-202-814-11	SOLID 33K 10% 1/2W	
R720	1-249-423-11	CARBON 3.3K 5% 1/4W	
R722	1-202-848-00	SOLID 680K 10% 1/2W	
R723	1-249-417-11	CARBON 1K 5% 1/4W	
R724	1-202-846-00	SOLID 470K 10% 1/2W	
R726	1-260-103-11	CARBON 2.2K 5% 1/2W	
R727	1-247-815-91	CARBON 220 5% 1/4W	
R728	1-216-350-11	METAL OXIDE 1.2 5% 1W	F
R729	1-249-408-11	CARBON 180 5% 1/4W	
R731	1-249-423-11	CARBON 3.3K 5% 1/4W	
R733	1-249-415-11	CARBON 680 5% 1/4W	
R734	1-247-807-31	CARBON 100 5% 1/4W	
R735	1-249-415-11	CARBON 680 5% 1/4W	
R736	1-216-486-00	METAL OXIDE 8.2K 5% 3W	F
R739	1-249-417-11	CARBON 1K 5% 1/4W	
R740	1-249-415-11	CARBON 680 5% 1/4W	
R741	1-202-549-00	SOLID 100 20% 1/2W	
R744	1-249-421-11	CARBON 2.2K 5% 1/4W	
R745	1-249-421-11	CARBON 2.2K 5% 1/4W	
R746	1-249-421-11	CARBON 2.2K 5% 1/4W	
R747	1-249-437-11	CARBON 47K 5% 1/4W	
R748	1-249-417-11	CARBON 1K 5% 1/4W	
R749	1-249-435-11	CARBON 33K 5% 1/4W	

< VARIABLE RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	

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*A-1640-214-A D2 BOARD, COMPLETE
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< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1801	1-126-967-11	ELECT 47MF 20% 50V	
C1803	1-137-368-11	FILM 0.0047MF 5% 50V	
C1804	1-126-964-11	ELECT 10MF 20% 50V	
C1807	1-137-366-11	FILM 0.0022MF 5% 50V	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1801	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
CN1803	*1-568-878-51	PIN, CONNECTOR 3P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1802	8-719-110-17	DIODE RD10ESB2	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1801	8-759-701-59	IC NJM78M09FA	
IC1802	8-759-603-37	IC M5216P	

< LINK IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
JW1802	⚠ 1-532-605-91	LINK, IC 0.4A (ICP-F10)	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1807	1-247-883-00	CARBON 150K 5% 1/4W	
R1809	1-249-429-11	CARBON 10K 5% 1/4W	
R1810	1-249-429-11	CARBON 10K 5% 1/4W	
R1811	1-249-429-11	CARBON 10K 5% 1/4W	
R1812	1-249-429-11	CARBON 10K 5% 1/4W	

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*A-1640-235-A D3 BOARD, COMPLETE
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< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2802	1-126-965-11	ELECT 22MF 20% 50V	

D3 **D**

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Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		< CONNECTOR >			
CN2801	1-568-878-51	PIN, CONNECTOR 3P			
CN2802	*1-580-798-11	CONNECTOR PIN (DY) 6P			
CN2803	*1-580-798-11	CONNECTOR PIN (DY) 6P			
		< DIODE >			
D2801	8-719-991-33	DIODE 1SS133T-77			
		< TRANSISTOR >			
Q2801	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< RESISTOR >			
R2801	1-249-421-11	CARBON	2.2K	5%	1/4W
		< RELAY >			
RY2801	1-755-068-11	RELAY			
		< COIL >			
T2801	1-411-981-11	COIL, CHOKE 245UH			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1642-190-A	D BOARD, COMPLETE *****************			
	4-201-023-01	SPACER, INSULATING			
	4-202-373-01	SPRING, IC			
		< CAPACITOR >			
C502	1-102-824-00	CERAMIC	470PF	5%	50V
C503	1-136-165-00	FILM	0.1MF	5%	50V
C504	1-102-824-00	CERAMIC	470PF	5%	50V
C506	1-126-941-11	ELECT	470MF	20%	25V
C507	1-109-953-11	ELECT	2.2MF	20%	50V
C509	1-136-165-00	FILM	0.1MF	5%	50V
C510	1-126-969-11	ELECT	220MF	20%	50V
C511	1-136-202-11	FILM	0.33MF	5%	63V
C513	1-106-220-00	MYLAR	0.1MF	10%	100V
C514	1-136-165-00	FILM	0.1MF	5%	50V
C515	1-126-941-11	ELECT	470MF	20%	25V
C517	1-126-941-11	ELECT	470MF	20%	25V
C518	1-102-228-00	CERAMIC	470PF	10%	500V
C519	1-102-228-00	CERAMIC	470PF	10%	500V
C520	1-126-941-11	ELECT	470MF	20%	25V
C521	1-107-698-11	ELECT	10MF	20%	25V
C522	1-126-964-11	ELECT	10MF	20%	50V
C523	1-136-165-00	FILM	0.1MF	5%	50V
C600 ⚠	1-113-890-51	ELECT	0.0022MF	20%	250V
C601 ⚠	1-161-964-91	CERAMIC	0.0047MF		250V
C602 ⚠	1-161-964-91	CERAMIC	0.0047MF		250V
C603	1-125-555-11	ELECT	330MF	20%	400V
C604	1-126-968-11	ELECT	100MF	20%	50V
C605	1-107-929-11	ELECT	10MF	20%	100V
C606	1-162-318-11	CERAMIC	0.001MF	10%	500V
C607	1-104-666-11	ELECT	220MF	20%	25V
C608	1-109-880-11	FILM	0.0015MF	3%	2KV
C611	1-102-228-00	CERAMIC	470PF	10%	500V
C612	1-111-160-91	ELECT	22MF	20%	100V
C613	1-124-347-00	ELECT	100MF	20%	160V
C614	1-128-526-11	ELECT	100MF	20%	25V
C615	1-111-067-11	ELECT	0.001MF	20%	25V
C616	1-111-067-11	ELECT	0.001MF	20%	25V
C617	1-128-339-51	ELECT	2200MF	20%	16V
C618	1-136-165-00	FILM	0.1MF	5%	50V
C619	1-102-228-00	CERAMIC	470PF	10%	500V
C620	1-102-228-00	CERAMIC	470PF	10%	500V
C621	1-136-165-00	FILM	0.1MF	5%	50V
C622	1-107-925-11	ELECT	1.0MF	20%	100V
C623	1-104-666-11	ELECT	220MF	20%	25V
C624	1-136-165-00	FILM	0.1MF	5%	50V
C625	1-126-967-11	ELECT	47MF	20%	50V
C626	1-104-666-11	ELECT	220MF	20%	25V
C628	1-126-964-11	ELECT	10MF	20%	50V
C629	1-111-097-11	ELECT	2200MF	20%	35V
C630	1-111-097-11	ELECT	2200MF	20%	35V
C631	1-126-965-11	ELECT	22MF	20%	50V
C632	1-104-666-11	ELECT	220MF	20%	25V
C633 ⚠	1-107-563-12	FILM	0.1MF	20%	300V
C634 ⚠	1-107-563-12	FILM	0.1MF	20%	300V
C635 ⚠	1-107-563-12	FILM	0.1MF	20%	300V
C636 ⚠	1-113-890-51	ELECT	0.0022MF	20%	250V
C638	1-136-203-11	FILM	0.01MF	10%	630V
C640	1-106-220-00	MYLAR	0.1MF	10%	100V
C644	1-137-043-11	FILM	0.0047MF	10%	400V
C647	1-162-116-00	CERAMIC	680PF	10%	2KV
C651	1-102-228-00	CERAMIC	470PF	10%	500V
C800	1-137-368-11	FILM	0.0047MF	5%	50V
C801	1-137-368-11	FILM	0.0047MF	5%	50V
C802	1-102-074-00	FILM	0.001MF	10%	50V
C804	1-136-165-00	FILM	0.1MF	5%	50V
C805	1-136-207-11	FILM	0.047MF	10%	250V
C806	1-104-999-11	MYLAR	0.1MF	10%	200V
C807	1-136-109-00	FILM	0.68MF	5%	200V
C808	1-136-104-00	FILM	0.16MF	5%	200V
C810	1-107-683-11	ELECT	2.2MF	0	250V
C811	1-102-212-00	CERAMIC	820PF	10%	500V
C812	1-136-540-11	FILM	0.82MF	5%	200V
C813	1-129-722-00	FILM	0.047MF	10%	630V
C814	1-136-084-00	FILM	0.0145MF	3%	2KV
C815	1-137-047-11	FILM	0.01MF	10%	400V
C816	1-162-134-11	CERAMIC	470PF	10%	2KV
C817	1-162-116-00	CERAMIC	680PF	10%	2KV
C818	1-162-134-11	CERAMIC	470PF	10%	2KV
C819	1-136-208-11	FILM	0.068MF	10%	250V
C820	1-102-114-00	CERAMIC	470PF	10%	50V
C821	1-162-114-00	CERAMIC	0.0047MF		2KV
C822	1-107-662-11	ELECT	22MF	20%	250V
C824	1-123-024-21	ELECT	33MF		160V
C829	1-124-902-00	ELECT	0.47MF	20%	50V
C830	1-124-902-00	ELECT	0.47MF	20%	50V
C832	1-124-903-11	ELECT	1MF	20%	50V
C834	1-128-551-11	ELECT	22MF	20%	25V
C835	1-162-318-11	CERAMIC	0.001MF	10%	500V
C836	1-162-117-00	CERAMIC	100PF	10%	500V
C837	1-102-978-00	CERAMIC	220PF	5%	50V
C838	1-102-228-00	CERAMIC	470PF	10%	500V
C839	1-136-207-11	FILM	0.047MF	10%	250V
C845	1-101-880-00	CERAMIC	47PF	5%	50V
C901	1-101-810-00	CERAMIC	100PF	5%	500V

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C902	1-137-372-11	FILM 0.022MF 5%	50V
C903	1-137-372-11	FILM 0.022MF 5%	50V
C904	1-104-665-11	ELECT 100MF 20%	25V
C905	1-126-964-11	ELECT 10MF 20%	50V
C906	1-126-964-11	ELECT 10MF 20%	50V
C907	1-126-964-11	ELECT 10MF 20%	50V
C908	1-126-964-11	ELECT 10MF 20%	50V
C911	1-126-964-11	ELECT 10MF 20%	50V
C913	1-101-810-00	CERAMIC 100PF 5%	500V
C914	1-101-004-00	CERAMIC 0.01MF	50V
C915	1-136-166-00	FILM 0.12MF 5%	50V
C1200	1-136-165-00	FILM 0.1MF 5%	50V
C1201	1-136-173-00	FILM 0.47MF 5%	50V
C1202	1-136-173-00	FILM 0.47MF 5%	50V
C1203	1-136-169-00	FILM 0.22MF 5%	50V
C1204	1-136-169-00	FILM 0.22MF 5%	50V
C1205	1-101-005-00	CERAMIC 0.022MF	50V
C1206	1-101-005-00	CERAMIC 0.022MF	50V
C1207	1-126-933-11	ELECT 100MF 20%	16V
C1208	1-126-963-11	ELECT 4.7MF 20%	50V
C1209	1-126-963-11	ELECT 4.7MF 20%	50V
C1212	1-162-318-11	CERAMIC 0.001MF 10%	500V
C1213	1-162-318-11	CERAMIC 0.001MF 10%	500V
C1214	1-126-933-11	ELECT 100MF 20%	16V
C1215	1-136-173-00	FILM 0.47MF 5%	50V
C1216	1-137-366-11	FILM 0.0022MF 5%	50V
C1217	1-137-366-11	FILM 0.0022MF 5%	50V
C1218	1-126-935-11	ELECT 470MF 20%	16V
		< CONNECTOR >	
CN600 ⚠	1-508-786-11	PIN, CONNECTOR (5MM PITCH) 2P	
CN601 ⚠	1-508-765-11	PIN, CONNECTOR (5MM PITCH) 3P	
CN603 ⚠	*1-580-844-11	PIN, CONNECTOR (POWER)	
CN800	*1-580-798-11	CONNECTOR PIN (DY) 6P	
CN801	*1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	
CN803	1-695-915-21	TAB (CONTACT)	
CN804	1-778-037-11	PIN, CONNECTOR 6P	
CN807	1-568-878-51	PIN, CONNECTOR 3P	
CN900	1-568-678-11	TERMINAL BLOCK, S 3P	
CN902	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1401	*1-568-880-51	PIN, CONNECTOR 5P	
CN1407	1-564-511-11	PLUG, CONNECTOR 8P	
CN1408	*1-568-879-11	PIN, CONNECTOR 4P	
CN1420	1-568-878-51	PIN, CONNECTOR 3P	
		< DIODE >	
D500	8-719-109-85	DIODE RD5.1ES-B2	
D502	8-719-979-85	DIODE EGP20G	
D503	8-719-979-85	DIODE EGP20G	
D504	8-719-991-33	DIODE 1SS133T-77	
D505	8-719-982-03	DIODE MTZJ-3.6A	
D506	8-719-991-33	DIODE 1SS133T-77	
D507	8-719-109-85	DIODE RD5.1ES-B2	
D600	8-719-510-53	DIODE D4SB60L	
D601	8-719-046-77	DIODE EM1-V1	
D603	8-719-109-97	DIODE RD6.8ES-B2	
D604	8-719-046-75	DIODE EU-1-V1	
D605	8-719-302-43	DIODE EL1Z	
D606	8-719-302-43	DIODE EL1Z	
D607	8-719-046-78	DIODE EG-1Z-V1	
D608	8-719-302-06	DIODE EU2A	
D609	8-719-301-64	DIODE RU4DS	
D610	8-719-046-74	DIODE AU-01Z-V1	
D611	8-719-058-38	DIODE FMN-G12S	
D612	8-719-046-76	DIODE RU-3YX-V1	
D613	8-719-058-38	DIODE FMN-G12S	
D614	8-719-058-38	DIODE FMN-G12S	
D615	8-719-046-75	DIODE EU-1-V1	
D616	8-719-110-03	DIODE RD7.5ESB2	
D617	8-719-991-33	DIODE 1SS133T-77	
D618	8-719-991-33	DIODE 1SS133T-77	
D619	8-719-991-33	DIODE 1SS133T-77	
D620	8-719-991-33	DIODE 1SS133T-77	
D622	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D625	8-719-991-33	DIODE 1SS133T-77	
D626	8-719-046-74	DIODE AU-01Z-V1	
D631	8-719-109-93	DIODE RD6.2ES-B2	
D800	8-719-991-33	DIODE 1SS133T-77	
D801	8-719-991-33	DIODE 1SS133T-77	
D802	8-719-991-33	DIODE 1SS133T-77	
D803	8-719-908-03	DIODE GP08D	
D807	8-719-302-43	DIODE EL1Z	
D808	8-719-908-03	DIODE GP08D	
D809	8-719-018-82	DIODE RGP02-20EL-6394	
D810	8-719-302-43	DIODE EL1Z	
D812	8-719-038-49	DIODE FMS-3FU-LF027-103	
D815	8-719-908-03	DIODE GP08D	
D817	8-719-109-85	DIODE RD5.1ES-B2	
D901	8-719-030-11	DIODE SLA-570KT3F	
	*4-203-258-01	HOLDER,LED ;D901	
D902	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D903	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D904	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D905	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D906	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1201	8-719-109-72	DIODE RD3.9ES-B2	
		< FUSE >	
F601 ⚠	1-576-232-21	FUSE (H.B.C.) 5A/250V	
⚠	1-533-230-12	HOLDER, FUSE ;F601	
		< FERRITE BEAD >	
FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB800	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
		< IC >	
IC500	8-759-192-71	IC STV9379	
IC600	8-749-010-92	IC STR-S6709	
IC601 ⚠	8-749-924-92	IC TLP721(D4-)	
IC602	8-749-920-61	IC SE-135N	
IC603	8-759-144-82	IC µPC2405HF	
IC604	8-759-510-52	IC TEA7605	
IC606	8-759-267-25	IC LM2940T-9.0	
IC800	8-759-103-93	IC µPC393C	
IC900	8-747-905-11	RAY CATCHER ELEMENT SBX1790-51	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC901	8-749-012-12	IC IS474	
IC1200	8-759-250-68	IC TDA7264	
IC1201	8-759-502-21	IC TDA2822M	
		< JACK SOCKET >	
J900	1-764-606-11	JACK	
J1200	1-770-218-11	JACK, PIN	
		< COIL >	
L502	1-412-519-11	INDUCTOR 3.3UH	
L503	1-412-519-11	INDUCTOR 3.3UH	
L609	1-412-533-21	INDUCTOR 47UH	
L611	1-412-527-11	INDUCTOR 15UH	
L612	1-412-522-41	INDUCTOR 5.6UH	
L613	1-412-522-41	INDUCTOR 5.6UH	
L615	1-412-529-11	INDUCTOR 22UH	
L616	1-412-533-21	INDUCTOR 47UH	
L801	1-459-111-00	COIL, DRAM CORE (CDI)	
L802	1-459-104-00	COIL, WITH CORE	
L803	1-420-872-00	COIL, AIR-CORE	
L804	1-429-306-11	TRANSFORMER, HORIZONTAL LINEARITY	
L805	1-406-674-11	COIL, CHOKE 3.3MMH	
L806	1-412-527-11	INDUCTOR 15UH	
L809	1-412-533-21	INDUCTOR 47UH	
L811	1-406-978-11	COIL, CHOKE 150UH	
L813	1-412-552-11	INDUCTOR 2.2MMH	
L901	1-408-603-31	INDUCTOR 10UH	
L902	1-408-603-31	INDUCTOR 10UH	
L903	1-408-409-00	INDUCTOR 10UH	
L904	1-408-409-00	INDUCTOR 10UH	
		< IC LINK >	
PS600 ⚠	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
PS601 ⚠	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
PS602 ⚠	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
PS603 ⚠	1-532-686-91	LINK, IC 2.7A (ICP-F75)	
		< TRANSISTOR >	
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q503	8-729-900-89	TRANSISTOR DTC144ES	
Q601	8-729-025-04	TRANSISTOR 2SC3852A	
Q602	8-729-320-28	TRANSISTOR 2SA1667	
Q603	8-729-805-05	TRANSISTOR 2SC3601-E	
Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-900-65	TRANSISTOR DTA144ES	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q800	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-017-06	TRANSISTOR 2SC4793	
Q802	8-729-016-32	TRANSISTOR 2SC4927-01	
Q803	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q804	8-729-900-89	TRANSISTOR DTC144ES	
Q805	8-729-900-89	TRANSISTOR DTC144ES	
Q900	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1200	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1201	8-729-900-74	TRANSISTOR DTC143TS	
Q1202	8-729-900-80	TRANSISTOR DTC114ES	
Q1203	8-729-900-74	TRANSISTOR DTC143TS	
Q1204	8-729-900-74	TRANSISTOR DTC143TS	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< RESISTOR >	
R500	1-215-457-00	METAL 33K 1% 1/4W	
R502	1-249-421-11	CARBON 2.2K 5% 1/4W	
R503	1-249-429-11	CARBON 10K 5% 1/4W	
R504	1-215-457-00	METAL 33K 1% 1/4W	
R505	1-249-382-11	CARBON 1.2 5% 1/4W	F
R507	1-215-888-00	METAL OXIDE 220 5% 2W	F
R508	1-216-371-00	METAL OXIDE 1.5 5% 2W	F
R509	1-249-443-11	CARBON 0.47 5% 1/4W	F
R510	1-249-443-11	CARBON 0.47 5% 1/4W	F
R520	1-215-457-00	METAL 33K 1% 1/4W	
R521	1-215-457-00	METAL 33K 1% 1/4W	
R522	1-247-863-91	CARBON 22K 5% 1/4W	
R523	1-247-863-91	CARBON 22K 5% 1/4W	
R524	1-249-425-11	CARBON 4.7K 5% 1/4W	
R525	1-249-425-11	CARBON 4.7K 5% 1/4W	
R526	1-249-421-11	CARBON 2.2K 5% 1/4W	
R600	1-216-490-11	METAL OXIDE 39K 5% 3W	F
R601	1-249-417-11	CARBON 1K 5% 1/4W	
R602	1-215-473-00	METAL 150K 1% 1/4W	
R603	1-215-898-11	METAL OXIDE 10K 5% 2W	F
R604	1-249-420-11	CARBON 1.8K 5% 1/4W	
R605	1-216-362-11	METAL OXIDE 0.27 5% 2W	F
R607	1-216-421-11	METAL OXIDE 12 5% 1W	F
R608	1-216-365-00	METAL OXIDE 0.47 5% 2W	F
R610	1-215-427-00	METAL 1.8K 1% 1/4W	
R611	1-216-354-11	METAL OXIDE 2.7 5% 1W	F
R612	1-249-428-11	CARBON 8.2K 5% 1/4W	
R613	1-249-417-11	CARBON 1K 5% 1/4W	
R614	1-215-877-11	METAL OXIDE 22K 5% 1W	F
R615	1-249-435-11	CARBON 33K 5% 1/4W	
R616	1-215-471-00	METAL 120K 1% 1/4W	
R617	1-215-901-00	METAL OXIDE 33K 5% 2W	F
R618	1-247-863-91	CARBON 22K 5% 1/4W	
R619	1-216-425-11	METAL OXIDE 56 5% 1W	F
R620	1-260-131-11	CARBON 470K 5% 1/2W	
R621	1-216-425-11	METAL OXIDE 56 5% 1W	F
R622	1-249-437-11	CARBON 47K 5% 1/4W	
R623	1-249-429-11	CARBON 10K 5% 1/4W	
R624	1-249-393-11	CARBON 10 5% 1/4W	F
R625	1-249-434-11	CARBON 27K 5% 1/4W	
R626	1-249-430-11	CARBON 12K 5% 1/4W	
R627	1-216-347-11	METAL OXIDE 0.68 5% 1W	F
R628	1-249-415-11	CARBON 680 5% 1/4W	F
R629 ⚠	1-244-945-91	CARBON 1M 5% 1/2W	
R630 ⚠	1-218-265-21	METAL 8.2M 5% 1W	
R631 ⚠	1-205-949-11	WIREWOUND 1.8 5% 10W	
R632	1-247-807-31	CARBON 100 5% 1/4W	
R633	1-247-807-31	CARBON 100 5% 1/4W	
R634	1-249-397-11	CARBON 22 5% 1/4W	F
R635	1-249-437-11	CARBON 47K 5% 1/4W	
R636	1-249-417-11	CARBON 1K 5% 1/4W	
R637	1-247-815-91	CARBON 220 5% 1/4W	
R638	1-247-863-91	CARBON 22K 5% 1/4W	
R639	1-215-427-00	METAL 1.8K 1% 1/4W	
R642 ⚠	1-205-949-11	WIREWOUND 1.8 5% 10W	
R645	1-249-422-11	CARBON 2.7K 5% 1/4W	
R646	1-249-377-11	CARBON 0.47 5% 1/4W	F
R647	1-202-933-61	FUSIBLE 0.1 10% 1/2W	F
R649	1-249-426-11	CARBON 5.6K 5% 1/4W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R800	1-249-421-11	CARBON	2.2K	5%	1/4W	
R802	1-249-429-11	CARBON	10K	5%	1/4W	
R803	1-249-423-11	CARBON	3.3K	5%	1/4W	
R805	1-247-863-91	CARBON	22K	5%	1/4W	
R809	1-247-890-00	CARBON	330K	5%	1/4W	
R812	1-249-421-11	CARBON	2.2K	5%	1/4W	
R813	1-215-867-00	METAL OXIDE	470	5%	1W	F
R814	1-249-411-11	CARBON	330	5%	1/4W	
R816	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R817	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R818	1-215-883-11	METAL OXIDE	33	5%	2W	F
R819	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-215-909-11	METAL OXIDE	47	5%	3W	F
R822	1-215-868-00	METAL OXIDE	680	5%	1W	F
R824	1-249-420-11	CARBON	1.8K	5%	1/4W	
R826	1-247-752-11	CARBON	1K	5%	1/2W	
R827	1-249-425-11	CARBON	4.7K	5%	1/4W	
R828	1-247-863-91	CARBON	22K	5%	1/4W	
R829	1-249-493-11	CARBON	56K	5%	1/2W	
R830	1-217-778-11	FUSIBLE	1K	5%	1W	F
R832	1-215-877-11	METAL OXIDE	22K	5%	1W	F
R833	1-249-441-11	CARBON	100K	5%	1/4W	
R835	1-216-471-11	METAL OXIDE	27	5%	3W	F
R836	1-249-439-11	CARBON	68K	5%	1/4W	
R837	1-249-427-11	CARBON	6.8K	5%	1/4W	
R840	1-247-815-91	CARBON	220	5%	1/4W	
R841	1-249-418-11	CARBON	1.2K	5%	1/4W	
R842	1-249-441-11	CARBON	100K	5%	1/4W	
R843	1-247-891-00	CARBON	330K	5%	1/4W	
R846	1-247-893-11	CARBON	390K	5%	1/4W	
R847	1-247-897-11	CARBON	560K	5%	1/4W	
R848	1-249-863-91	CARBON	22K	5%	1/4W	
R849	1-249-429-11	CARBON	10K	5%	1/4W	
R850	1-249-425-11	CARBON	4.7K	5%	1/4W	
R851	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R852	1-249-432-11	CARBON	18K	5%	1/4W	
R870	1-216-349-00	METAL OXIDE	1	5%	1W	F
R900	1-247-815-91	CARBON	220	5%	1/4W	
R901	1-247-734-11	CARBON	39	5%	1/2W	
R902	1-247-734-11	CARBON	39	5%	1/2W	
R904	1-249-389-11	CARBON	4.7	5%	1/4W	F
R905	1-247-804-11	CARBON	75	5%	1/4W	
R906	1-247-804-11	CARBON	75	5%	1/4W	
R907	1-247-804-11	CARBON	75	5%	1/4W	
R908	1-249-401-11	CARBON	47	5%	1/4W	
R909	1-249-429-11	CARBON	10K	5%	1/4W	
R910	1-249-422-11	CARBON	2.7K	5%	1/4W	
R911	1-249-426-11	CARBON	5.6K	5%	1/4W	
R912	1-249-429-11	CARBON	10K	5%	1/4W	
R913	1-247-863-91	CARBON	22K	5%	1/4W	
R914	1-249-437-11	CARBON	47K	5%	1/4W	
R919	1-249-437-11	CARBON	47K	5%	1/4W	
R921	1-249-437-11	CARBON	47K	5%	1/4W	
R922	1-247-807-31	CARBON	100	5%	1/4W	
R923	1-249-421-11	CARBON	2.2K	5%	1/4W	
R924	1-259-884-11	CARBON	4.7M	5%	1/4W	
R925	1-247-807-31	CARBON	100	5%	1/4W	
R926	1-259-884-11	CARBON	4.7K	5%	1/4W	
R1200	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1201	1-249-434-11	CARBON	27K	5%	1/4W	
R1202	1-249-389-11	CARBON	4.7	5%	1/4W	F
R1203	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1204	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1205	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1206	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1207	1-249-413-11	CARBON	470	5%	1/4W	
R1208	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R1209	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R1210	1-249-413-11	CARBON	470	5%	1/4W	
R1211	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1212	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1213	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1216	1-249-413-11	CARBON	470	5%	1/4W	
R1217	1-249-425-11	CARBON	4.7K	5%	1/4W	

< RELAY >

RY600	⚠ 1-755-018-11	RELAY

< SWITCH >

S601	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)
S900	1-692-979-11	SWITCH, TACTILE
S901	1-692-979-11	SWITCH, TACTILE
S902	1-692-979-11	SWITCH, TACTILE

< SPARK GAP >

SG801	1-519-422-11	GAP, SPARK

< TRANSFORMER >

LF600	⚠ 1-421-776-21	LFT
LF601	⚠ 1-421-776-21	LFT
T601	⚠ 1-429-604-11	SRT
T800	1-426-981-11	TRANSFORMER, FERRITE (PMT)
T803	⚠ 1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)
T804	1-437-090-31	HDT

< THERMISTOR >

THP600	⚠ 1-809-827-11	THERMISTOR, POSITIVE

****

*A-1644-070-A VM BOARD, COMPLETE
****

*4-368-683-21 SPRING, TRANSISTOR

< CAPACITOR >

C1701	1-126-933-11	ELECT	100MF	20%	16V
C1702	1-128-551-11	ELECT	22MF	20%	25V
C1703	1-126-933-11	ELECT	100MF	20%	16V
C1704	1-107-357-11	FILM	0.47MF	5%	100V
C1705	1-107-638-11	ELECT	33MF	20%	160V
C1706	1-104-999-11	FILM	0.1MF	5%	200V
C1707	1-137-397-11	FILM	0.047MF	5%	100V
C1708	1-137-364-11	FILM	0.001MF	5%	50V
C1709	1-137-364-11	FILM	0.001MF	5%	50V
C1710	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1720	1-107-667-11	ELECT	2.2MF	20%	160V
C1721	1-137-397-11	FILM	0.047MF	5%	100V
C1722	1-126-934-11	ELECT	220MF	20%	16V

VM **K1** **J**

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1723	1-161-830-00	CERAMIC	0.0047MF		500V	
C1725	1-128-551-11	ELECT	22MF	20%	25V	
C1726	1-126-934-11	ELECT	220MF	20%	16V	
		< CONNECTOR >				
CN1015	*1-568-880-51	PIN, CONNECTOR 5P				
CN1718	1-774-418-11	CONNECTOR, BOARD TO BOARD 8P				
		< DIODE >				
D1701	8-719-991-33	DIODE 1SS133T-77				
D1702	8-719-110-88	DIODE RD39ES-B2				
D1703	8-719-110-88	DIODE RD39ES-B2				
		< COIL >				
L1701	1-408-409-00	INDUCTOR	10UH			
L1702	1-408-403-00	INDUCTOR	3.3UH			
L1703	1-408-409-00	INDUCTOR	10UH			
L1704	1-408-418-00	INDUCTOR	56UH			
L1705	1-408-418-00	INDUCTOR	56UH			
		< TRANSISTOR >				
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1703	8-729-017-05	TRANSISTOR 2SA1837				
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1706	8-729-017-06	TRANSISTOR 2SC4793				
Q1708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1709	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		< RESISTOR >				
R1701	1-249-417-11	CARBON	1K	5%	1/4W	
R1702	1-249-417-11	CARBON	1K	5%	1/4W	
R1703	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1704	1-249-415-11	CARBON	680	5%	1/4W	
R1705	1-247-815-91	CARBON	220	5%	1/4W	
R1706	1-247-815-91	CARBON	220	5%	1/4W	
R1708	1-249-412-11	CARBON	390	5%	1/4W	
R1712	1-260-311-11	CARBON	39	5%	1/2W	
R1713	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1714	1-249-414-11	CARBON	560	5%	1/4W	F
R1715	1-249-432-11	CARBON	18K	5%	1/4W	
R1716	1-249-417-11	CARBON	1K	5%	1/4W	F
R1717	1-216-476-11	METAL OXIDE	180	5%	3W	F
R1718	1-249-432-11	CARBON	18K	5%	1/4W	
R1719	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1720	1-249-400-11	CARBON	39	5%	1/4W	F
R1721	1-249-414-11	CARBON	560	5%	1/4W	
R1722	1-249-401-11	CARBON	47	5%	1/4W	
R1724	1-249-400-11	CARBON	39	5%	1/4W	
R1725	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1728	1-249-413-11	CARBON	470	5%	1/4W	
R1729	1-249-413-11	CARBON	470	5%	1/4W	
R1730	1-249-422-11	CARBON	2.7K	5%	1/4W	
R1731	1-249-411-11	CARBON	330	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1649-018-A	K1 BOARD, COMPLETE ******************				
	4-202-373-01	SPRING, IC				
		< CAPACITOR >				
C261	1-136-173-00	FILM	0.47MF	5%	50V	
C262	1-136-165-00	FILM	0.1MF	5%	50V	
C263	1-136-173-00	FILM	0.47MF	5%	50V	
C264	1-136-173-00	FILM	0.47MF	5%	50V	
C265	1-137-366-11	FILM	0.0022MF	5%	50V	
C266	1-137-366-11	FILM	0.0022MF	5%	50V	
C267	1-136-169-00	FILM	0.22MF	5%	50V	
C268	1-136-169-00	FILM	0.22MF	5%	50V	
C269	1-101-005-00	CERAMIC	0.022MF		50V	
C270	1-101-005-00	CERAMIC	0.022MF		50V	
C271	1-126-952-11	ELECT	1000MF	20%	35V	
C272	1-126-952-11	ELECT	1000MF	20%	35V	
		< CONNECTOR >				
CN1303	*1-568-879-11	PIN, CONNECTOR 4P				
CN1304	*1-568-879-11	PIN, CONNECTOR 4P				
CN1306	1-568-878-51	PIN, CONNECTOR 3P				
CN1307	*1-564-511-11	PLUG, CONNECTOR 8P				
		< DIODE >				
D260	8-719-109-72	DIODE RD3.9ES-B2				
		< IC >				
IC260	8-759-250-68	IC TDA7264				
		< TRANSISTOR >				
Q260	8-729-900-74	TRANSISTOR DTC143TS				
Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		< RESISTOR >				
R261	1-249-413-11	CARBON	470	5%	1/4W	
R262	1-249-421-11	CARBON	2.2K	5%	1/4W	
R263	1-249-434-11	CARBON	27K	5%	1/4W	
R264	1-249-425-11	CARBON	4.7K	5%	1/4W	
R265	1-249-424-11	CARBON	3.9K	5%	1/4W	
R266	1-249-424-11	CARBON	3.9K	5%	1/4W	
R267	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R268	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F

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	*A-1651-088-A	J BOARD, COMPLETE *****************				
		< CAPACITOR >				
C290	1-101-003-00	CERAMIC	0.0047MF		50V	
C291	1-101-005-00	CERAMIC	0.022MF		50V	
C293	1-101-003-00	CERAMIC	0.0047MF		50V	
C294	1-101-005-00	CERAMIC	0.022MF		50V	
C296	1-101-003-00	CERAMIC	0.0047MF		50V	
C297	1-101-005-00	CERAMIC	0.022MF		50V	
		< CONNECTOR >				
CN1204	*1-564-519-11	PLUG, CONNECTOR 4P				

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1206	*1-564-518-11	PLUG, CONNECTOR 3P	
CN1208	*1-564-519-11	PLUG, CONNECTOR 4P	
CN1210	*1-564-519-11	PLUG, CONNECTOR 4P	
CN1211	*1-564-519-11	PLUG, CONNECTOR 4P	
CN1299	*1-564-519-11	PLUG, CONNECTOR 4P	
		< SOCKET >	
J291	1-537-339-11	TERMINAL BOARD	
J292	1-537-339-11	TERMINAL BOARD	
		< RESISTOR >	
R290	1-249-426-11	CARBON 5.6K 5% 1/4W	
R291	1-249-426-11	CARBON 5.6K 5% 1/4W	
R292	1-249-426-11	CARBON 5.6K 5% 1/4W	

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MISCELLANEOUS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠ 1-411-893-11	COIL, DEGAUSSING	
	1-452-032-00	MAGNET, DISK; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
	1-452-724-22	COIL NA ROTATION (RT-165)	
	⚠ 1-453-169-11	TRANSFORMER ASSY, FLYBACK(UX-1604A2)	
	1-504-418-21	SPEAKER (5CM)	
	1-505-154-11	SPEAKER (6.5CM)	
	1-505-155-11	SPEAKER (10CM)	
	⚠ 1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)	
	1-693-338-11	TUNER/VIF (AEP) (KV-28WS2D/28WS2E/28WS2K/28WS2R)	
	1-693-340-11	TUNER/VIF (FR) (KV-28WS2B)	
	1-693-339-11	TUNER/VIF (UK) (KV-28WS2U)	
	⚠ 1-751-680-11	CORD, POWER (WITH NOISE FILTER) 2.5A/250V (KV-28WS2B/28WS2D/28WS2E)	
	⚠ 1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-28WS2K/28WS2R)	
	⚠ 1-776-204-11	CORD, POWER (FILTER) 3.0A/250V (KV-28WS2U)	
	⚠ 8-451-434-21	DEFLECTION YOKE (Y28GIA-B)	
	⚠ 8-453-005-61	NECK ASSY, PICTURE TUBE (NA297-M6)	
V901	⚠ 8-737-763-05	PICTURE TUBE (SD-284T)(W66LGY011X)	

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ACCESSORIES AND PACKING MATERIALS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-765-654-11	CABLE SPEAKER	
	4-203-538-51	MANUAL, INSTRUCTION (KV-28WS2B) (FRENCH/GERMAN/ITALIAN/DUTCH)	
	4-203-538-11	MANUAL, INSTRUCTION (KV-28WS2D) (DUTCH/GREEK/ENGLISH/GERMAN)	
	4-203-538-71	MANUAL, INSTRUCTION (KV-28WS2E) (FINNISH/DANISH/NORWEGIAN/SWEDISH)	
	4-203-538-91	MANUAL, INSTRUCTION (KV-28WS2K/28WS2R) (CZECH/ENGLISH/POLISH/BULGARIAN/RUSSIAN)	
	4-203-538-61	MANUAL, INSTRUCTION (KV-28WS2U) (ENGLISH)	
	*4-050-191-01	CUSHION (UPPER) (ASSY)	
	*4-050-192-01	CUSHION (LOWER) (ASSY)	
	*4-050-193-01	INDIVIDUAL CARTON	
	*4-395-957-01	BAG, PROTECTION	

REMOTE COMMANDER
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-473-692-11	COMMANDER, STANDARD TYPE (RM-862)	

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